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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

IN RE GOOGLE PLAY DEVELOPER
ANTITRUST LITIGATION

Case No. 3:20-cv-05792-JD

FIRST AMENDED CONSOLIDATED
CLASS ACTION COMPLAINT FOR
VIOLATION OF THE SHERMAN AND
CLAYTON ACTS (15 U.S.C. §§ 1, 2, 3, 15,
26), CARTWRIGHT ACT (CAL. BUS. &
PROF. CODE §§ 16700 ET SEQ.) AND
UNFAIR COMPETITION LAW (CAL. BUS.
& PROF. CODE §§17200 ET SEQ.)

**DEMAND FOR JURY TRIAL OF ALL
ISSUES SO TRIABLE**

Related Actions:
Epic Games, Inc. v. Google LLC,
No. 3:20-cv-5671-JD
In re Google Play Consumer Antitrust
Litigation, No. 3:20-cv-5761-JD

FIRST AMENDED CONSOLIDATED CLASS ACTION COMPLAINT
Case No.: 3:20-cv-05792-JD

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For their suit against Defendants Google LLC, Google Ireland Limited, Google Commerce Limited, Google Asia Pacific PTE. Ltd. and Google Payment Corp. (collectively, Google), Plaintiffs Pure Sweat Basketball Inc. and Peekya App Services, Inc., on their own behalf and that of all similarly situated U.S. Android OS application developers, allege as follows:

I. INTRODUCTION

1. Native applications—apps of various sorts programmed for and downloaded to a mobile device—bring smartphones and tablets to life. In turn, add-ons for apps—items such as consumables (for example, extra lives in an adventure game) or subscriptions for full-fledged mobile productivity apps—make apps more fun or useful. These apps and in-app digital content are created through the ingenuity, training, investment, and hard work of developers, and the buyers of their products now include most households in the United States. As of February 2021, 85% of Americans owned smartphones, and 53% owned tablets.¹ Where U.S. consumers buy apps and add-ons depends on whether their devices run on Apple’s or Google’s respective operating systems. As the Congressional Subcommittee on Antitrust, Commercial, and Administrative Law recently reported, “both Apple and Google have durable and persistent market power in the mobile operating system market; iOS and Android run on more than 99% of mobile devices in the U.S. and globally.”² The Apple App Store is “the only app store available on iOS devices,” and the “Google Play store is the primary app store installed on all Android devices.”³

2. And because the apps and add-ons for iOS and Android devices are incompatible⁴ (with all the barriers and switching costs entailed), Apple’s app store does not place competitive pressure on the Google Play Store, particularly regarding the prices that Google charges developers for app-

¹ <http://www.pewinternet.org/fact-sheet/mobile/> (last accessed July 19, 2021).

² *Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations*, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, United States House of Representatives (October 6, 2020) (“House Report”) at 94, available at https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf (last accessed Oct. 21, 2020).

³ *Id.* at 95.

⁴ <https://yourbusiness.azcentral.com/apple-apps-compatible-android-20369.html> (last accessed Aug. 15, 2020); *see* House Report at 94.

1 distribution services. The same is true for in-app purchases (often called “IAP”), which primarily entail
2 the processing of consumers’ payments for any add-ons they purchased in apps distributed through
3 Google Play Store (collectively, “in-app digital content”).⁵ As a result, Google and Apple split the
4 lucrative mobile apps world between them, with enormous profits for each.

5 3. This suit concerns the anticompetitive conduct Google has engaged in to (1) establish
6 and maintain its monopoly in the U.S. market for the distribution of Android OS apps, and (2) extend
7 that monopoly to the market for in-app digital content.

8 4. Initially, Google purported to be building an “open ecosystem” that permitted
9 developers to sell apps to consumers however they choose.⁶ In reality, through a thicket of agreements
10 with smartphone manufactures and carriers, “revenue sharing” payoffs, and technical barriers, Google
11 has constructed an effectively closed ecosystem, i.e., an ecosystem closed to rival app stores. In total,
12 Google Play now distributes more than 90% of all Android OS apps in the United States, enjoying
13 monopoly power in the market for the distribution of Android OS apps. Furthermore, Google illegally
14 ties the Google Play Store to its own in-app payment processor (“Google Play Billing,” or “GPB”)—
15 requiring all developers selling apps through Google Play Store to sell any in-app digital content
16 through Google Play Billing. Google also enjoys a monopoly in the U.S. market for in-app payment
17 processing on Android OS.⁷

18
19
20 ⁵ See House Report at 95 (“The App Store and the Play Store do not compete against one another.
21 Android users cannot access the Apple App Store, and iOS users cannot access the Google Play Store,
22 so the dominance of the Play Store is not constrained by the App Store and vice versa.”) (citation
omitted); *id.* at 102 (“high switching costs and a lack of on-device competition means that neither
firm’s market power is disciplined by the presence of the other.”).

23 ⁶ Or as Google’s Donald Harrison put it in a March 2020 email to Tim Sweeny, the CEO of Epic
24 Games: “Android continues to be an open ecosystem, where you have multiple options for
distributing your [app], including through OEM stores.”

25 ⁷ While Google has “always required developers who distribute their apps on Play to use Google
26 Play’s billing system if they offer in-app purchases of digital goods, and pay a service fee from a
percentage of the purchase,” it recently “clarified” its Payments Policy “to be more explicit that all
27 developers selling digital goods in their apps are required to use Google Play’s billing system.” “[F]or
those who already have an app on Google Play that requires technical work to integrate [Google’s]
28 billing system[,]” Google has set a deadline of September 30, 2021 for developers to “complete any
needed updates.” See <https://android-developers.googleblog.com/2020/09/listening-to-developer-feedback-to.html> (last accessed July 15, 2021).

1 5. Far from maintaining its Android OS apps monopoly in a competitive “open”
2 ecosystem, Google has and continues to systematically leverage anticompetitive agreements and
3 technical barriers to secure that monopoly and block potential competition. Google has done so in two
4 main ways.

5 6. *First*, Google obtained and maintains its monopoly status through agreements with
6 device manufacturers (often called original equipment manufacturers or “OEMs”). The key agreement
7 in this respect is the Mobile Application Distribution (“MADA”) Agreement. Any OEM that wants to
8 preinstall the Google Play Store must sign a MADA Agreement to obtain a license for Google’s must-
9 have apps—including the popular YouTube and Google Maps apps, which are literally “must-have”
10 because of Google’s forced-bundling practices.⁸ And under the MADA Agreements, the manufacturer
11 is required not only to preinstall Google Play Store but must, in addition, give it premium placement
12 through a permanent position on the device’s home screen.

13 7. As discovery produced so far in this case has revealed, starting in 2019, Google also
14 began entering new [REDACTED]

15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]

19 8. *Second*, in addition to using a thicket of agreements with OEMs to substantially
20 foreclose distribution of other app stores,⁹ Google deploys unnecessary and pretextual technical
21 barriers to deter consumers from “sideloading” apps. These barriers include (1) default settings to
22 block downloading; (2) misleading official Android security warnings; and (3) other security
23 mechanisms designed to deter consumers from using a competing app store or downloading apps from
24

25 ⁸ See House Report at 213 (finding that “Google required that any smartphone manufacturer
26 seeking to license Android preinstall Google Search and Google Play Store, alongside a host of other
rotating apps selected by Google.”) (citation omitted).

27 ⁹ See *id.* at 219 (“Because Google’s Play Store is the primary way that users install applications on
28 Android devices, the Play Store effectively functions as a gatekeeper for software distribution on a
majority of the world’s mobile devices.”)

1 outside the Google Play Store. Google also prevents the automatic updating of apps downloaded
2 outside Google Play Store and, through its security systems, sometimes disables such apps without a
3 user's knowledge.

4 9. Google's pretextual technical barriers create, as the Congressional Subcommittee
5 explained, "significant friction for sideloading apps to Android devices. ... [S]ideloading entails a
6 complicated twenty-step process, and users encounter multiple security warnings designed to
7 discourage sideloading."¹⁰

8 10. Through this conduct, Google has substantially *and intentionally* foreclosed
9 competition, even from otherwise established and successful companies capable of policing their
10 own stores for malware.

11 11. Not surprisingly, an internal Google document from 2021 estimates that, in the United
12 States, [REDACTED] of devices have a user-sideloaded store.

13 12. That is precisely what Google intended—to degrade and eliminate alternative channels
14 of app distribution and in-app content. As Google knows, few Android users are even aware of the
15 necessary process for going outside the Google Play Store, much less willing go to such trouble (and
16 ignore Google's security warnings) to download an app from a competitor. Its internal documents
17 show that Google "kn[ew] from [its] data" that "install friction" from sideloading "is not only a bad
18 experience," but" that it would "drastically limit [an app's] reach."¹¹

19 13. Through its anticompetitive conduct, including both its anticompetitive agreements
20 with OEMs and others and unjustifiable technical barriers, Google has prevented the erosion of its
21 monopoly power in the market for distribution of Android OS apps and in the market for in-app
22 payment processing. Google's contracts and practices "cut off the air supply" even from well-
23 resourced competitors like Amazon, robbing the marketplace of innovative means of distributing apps
24
25

26 ¹⁰ *Id.* at 97.

27 ¹¹ See also "Download apps to your Android device," available at: https://support.google.com/android/answer/7391672?hl=en&ref_topic=7311596 (last accessed Aug. 15, 2020) (setting forth official safety warnings for those who would venture outside Google Play).
28

1 at lower costs to developers. By stifling competition, Google deprives consumers of readily accessible,
2 alternative choices in the U.S. market for Android OS app distribution and in-app payment processing.

3 14. Google also abused its unlawfully acquired market dominance to impose
4 supracompetitive pricing on developers. Google maintains a default service fee of 30%¹² (subject to
5 exceptions for certain kinds of purchases) paid by developers to Google on each sale of non-zero-
6 priced Android OS apps through the Google Play Store and of in-app digital content¹³ through (the
7 mandatory) Google Play Billing.¹⁴ So if an app or in-app digital content costs \$1.99, Google usually
8 takes nearly 60 cents.

9 15. For a small portion of transactions, Google charges developers a 15% service fee. For
10 example, after Plaintiffs commenced this litigation, Google allowed app developers to register for a
11 lower 15% service fee on the first \$1 million of annual revenue they generate through Google Play
12 Store. But like Google's 30% service fee, the 15% service fee is still a supracompetitive charge.

13 16. Moreover, as a condition of accessing Google Play Store, Google forces developers to
14 process payments for in-app purchases exclusively through Google Play Billing—at a cost of 15% to
15 30% on each transaction. In other words, Google illegally ties its Google Play Billing solution to the
16
17

18 ¹² Google's current and past 70% (developer) / 30% (Google) revenue split is memorialized at
19 paragraph 3.4 of its Google Play Developer Distribution Agreement by reference to a Service Fee,
20 which in turn is linked to Google's "Service fees" schedule. (See
21 <https://play.google.com/about/developer-distribution-agreement.html> (Dev. Agr.) (last accessed Aug.
22 15, 2020), available at: [https://support.google.com/googleplay/android-developer/answer/
112622?hl=en](https://support.google.com/googleplay/android-developer/answer/112622?hl=en) ("For apps and in-app products offered through Google Play, the service fee is
equivalent to 30% of the price. You receive 70% of the payment. The remaining 30% goes to the
distribution partner and operating fees.") (last accessed Aug. 15, 2020).)

23 ¹³ Google has modified its service-fee structure with respect to subscriptions.
24 (<https://support.google.com/googleplay/android-developer/answer/112622?hl=en> ("As of January 1,
25 2018, the transaction fee for subscription products decreases to 15% for any subscribers you retain
after 12 paid months. If a subscriber has been active as of this date, that time will be counted. For
example, if a subscriber has been active for 4 months, the transaction fee will be reduced to 15% after
8 more paid months."))

26 ¹⁴ Google also charges developers a \$25 fee to set up a Google Play developer account.
27 (<https://support.google.com/googleplay/android-developer/answer/6112435?hl=en>) ("There is a \$25
28 USD one-time registration fee ... ") (last accessed Aug. 15, 2020).) This fee helps offset costs that
Google may claim as justification for its supracompetitive 30% (or 15%) service fee, especially
considering the sheer number of developers from whom Google collects it.

1 agreement to distribute apps through Google Play Store and then charges a supracompetitive fee for
2 that tied product.

3 17. The anti-competitive effects of this tie are far-reaching; not only does it impose a
4 supracompetitive fee on developers, but it also stymies innovation and limits key ways in which
5 developers manage and develop their businesses. But for that illegal tie, developers could create and
6 use proprietary payment systems or the products of competitors that could compete not just on price
7 but by offering more features and better functionality. The result would be an ecosystem fundamentally
8 enriched by market competition.

9 18. Documents produced by Google confirm that its 30% service fee was picked out of a
10 hat in 2009, when Google launched the earliest version of what is now the Google Play Store. A slide
11 from a January 2009 presentation titled “Apps Marketplace Monetization” is explicit:

12 **30% is an arbitrary fee >**
13 **the transaction cost to GOOG (2%).**

14 More recent documents confirm the arbitrariness of Google’s pricing—a Google presentation from
15 2021 estimates that processing in-app payments costs Google just 2.6% per transaction.

16 19. What all this shows is that Google could generate a profit while charging developers
17 significantly less than 15%—a conclusion confirmed by Google’s own documents, as well as by other
18 benchmarks for competitive rates. Epic, for example, charges a 12% service fee on the Epic Games
19 Store. Another relevant benchmark comes from Google’s own Chrome Web Store. Unlike Google
20 Play Store, the Chrome Web Store faces competition from various distribution channels, and thus
21 Google cannot charge arbitrary anticompetitive rates. Instead, Google charges just 5%—a rate that is
22 *one sixth* the charge for the Google Play Store.¹⁵

23 20. By imposing supracompetitive fees on developers, Google extracts more money from
24 developers than they would otherwise have to pay for the distribution of Android OS apps and the
25

26 ¹⁵ “The transaction fee for all purchases in Google Play (apps and in-app purchases) is 30% of the
27 price the customer pays. In other words, developers get 70% of the payment and the remaining 30%
28 goes to the distribution partner and operating fees.” “The transaction fee for app purchases in Chrome
Web Store is 5% of the app prices. In other words, developers get 95% of the purchase price.” See
Google Pay Help, GOOGLE, <https://support.google.com/paymentscenter/answer/7159343?hl=en>.

1 payment processing for in-app digital content. But for Google's exclusionary behavior, competition in
2 the Android app distribution market (as well as the tied market for in-app payment processing) would
3 have eroded Google's monopoly power and constrained its ability to impose supracompetitive prices.

4 21. In sum, Google's willful acquisition and maintenance of monopoly power in the
5 markets identified, and its abuse of that power (among other things) to impose its supracompetitive
6 distribution and in-app payment-processing fees on U.S. Android OS developers like Plaintiffs, are
7 harmful to competition and, specifically, to developers.

8 22. Alternatively, if Google is found to be the purchaser of digital products from Android
9 OS developers and to, in turn, sell those products to end-users via Google Play Store or otherwise, then
10 Google acts as a monopsonist, or attempted monopsonist. (A monopsonist is a buy-side monopolist.)
11 The circumstances, effects, and allegations are essentially the same for monopoly or attempted
12 monopoly: Google uses its monopsony power to pay Android OS developers a price below the but-for
13 price they would obtain in a competitive market for their apps and in-app products. Therefore,
14 Plaintiffs' allegations herein should be understood to also plead in the alternative claims based on
15 monopsony, both for Plaintiffs and the putative class. In either alternative, and as pleaded in this
16 complaint, Google's behavior violates antitrust and consumer protection laws.

17 23. Plaintiffs seek monetary relief to redress the injuries caused by Google's past and
18 ongoing conduct, and injunctive relief to stop Google's ongoing improper, unlawful, and harmful
19 behavior in the relevant markets.

20 II. JURISDICTION AND VENUE

21 24. This Court has subject matter jurisdiction over this action under 28 U.S.C. § 1331
22 because Plaintiffs allege violations of federal law, namely, the federal Sherman Act. The Court has
23 supplemental jurisdiction over the Plaintiffs' state law claim pursuant to 28 U.S.C. § 1367(a).

24 25. This Court has personal jurisdiction over the Defendants. Google LLC and Google
25 Payment are headquartered in this District. All Defendants have engaged in sufficient minimum
26 contacts with the United States and have purposefully availed themselves of the benefits and
27 protections of United States and California law, such that the exercise of jurisdiction over them would
28

1 comport with due process requirements. Further, the Defendants have consented to the exercise of
2 personal jurisdiction by this Court.

3 26. Venue is proper in this District pursuant to 28 U.S.C. § 1391(b) because Google LLC
4 and Google Payment maintain their principal places of business in the State of California and in this
5 District, because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred
6 in this District, and because, pursuant to 28 U.S.C. § 1391(c)(3), any Defendants not resident in the
7 United States may be sued in any judicial district and their joinder with others shall be disregarded in
8 determining proper venue. In the alternative, personal jurisdiction and venue also may be deemed
9 proper under Section 12 of the Clayton Antitrust Act, 15 U.S.C. § 22, because Defendants may be
10 found in or transact business in this District. Furthermore, the Google Play Terms of Service
11 incorporates the Google Terms of Service by reference, and the latter designates this judicial district
12 as the federal venue for this action.¹⁶

13 III. INTRA-DISTRICT ASSIGNMENT

14 27. Pursuant to N.D. Cal. Civil Local Rule 3-2 and General Order 44, this antitrust class
15 action has been assigned on a district-wide basis and is not subject to reassignment on the basis of
16 intra-district venue.

17 IV. PARTIES

18 A. The Plaintiffs

19 28. Plaintiff Pure Sweat Basketball Inc. ("Pure Sweat Basketball") is an Illinois corporation
20 with its principal place of business in Crystal Lake, Illinois. It is the developer of the Pure Sweat
21 Basketball Workout App. Pure Sweat Basketball is a party to the developer contracts referenced in this
22 complaint. These agreements specify the commission rate and pricing and other mandates described
23 herein. Also, in order to be permitted to make its app available in Google Play, and to sell non-zero
24

25 ¹⁶ See Google Play Terms of Service, <https://play.google.com/about/play-terms/index.html>, which
26 incorporates the Google Terms of Service, the latter of which is available at:
27 <https://policies.google.com/terms> ("California law will govern all disputes arising out of or relating to
28 these terms, service-specific additional terms, or any related services, regardless of conflict of laws
rules. These disputes will be resolved exclusively in the federal or state courts of Santa Clara County,
California, USA, and you and Google consent to personal jurisdiction in those courts.") (last accessed
Aug. 15, 2020).

1 priced subscriptions through its app, Pure Sweat Basketball has paid Google's \$25 developer fee. To
2 the best of its knowledge, Pure Sweat Basketball's last distributions of its app through Google Play,
3 and sales of subscriptions at non-zero prices through the app, have occurred this year. Pure Sweat
4 Basketball charges \$4.99 monthly for its digital subscription product, or \$49.99 annually, and it has
5 paid Google's supracompetitive commissions on these sales.

6 29. Alternatively, Google paid Pure Sweat Basketball what amounts to an artificially low
7 wholesale price for digital products sold via Google Play. Furthermore, Pure Sweat Basketball's in-
8 app subscription sales (like the app, if sold at above-zero prices) have always been subject to Google's
9 requirement that app transactions be priced at a minimum of \$.99, as well as other pricing mandates.
10 Google has denied Pure Sweat Basketball the ability to choose to sell digital products at price points
11 below \$.99, in efforts to achieve maximum sales and effect business plans as it would elect, to
12 Plaintiffs' detriment.

13 30. Plaintiff Peekya App Services, Inc. ("Peekya") is a Florida corporation with its
14 principal place of business in Sarasota, Florida. Peekya developed and maintains an app called
15 "*Peekya*" that has been and currently is distributed through Google Play. Peekya is a party to and has
16 complied with the Google-developer contracts that are described in this Complaint. In order to sell its
17 app through Google Play for \$2.99, Peekya has paid Google's \$25 developer fee. Within the four years
18 preceding the filing of this Complaint, Android mobile device users have purchased and downloaded
19 *Peekya*, and Peekya paid Google's supracompetitive commission on these sales. Furthermore,
20 Peekya's pricing of its app has always been subject to Google's requirement that app transactions be
21 priced at a minimum of \$.99, as well as other pricing mandates. Google has denied Peekya the ability
22 to choose to sell digital products at price points below \$.99, in efforts to achieve maximum sales and
23 effect business plans as it would elect, to Plaintiff's detriment.

24 **B. The Defendants**

25 31. Defendant Google LLC is a Delaware limited liability company with its headquarters
26 and principal place of business in Mountain View, California. It is the owner of Google Play Store,
27 from and by which developers of Android apps sell paid applications, music, movies, books, and in-
28

1 app products to Android device owners. Its parent, Alphabet Inc., was number 9 on last year's U.S.
2 Fortune 500,¹⁷ with 2020 revenues of nearly \$183 billion and profits of \$40.269 billion.¹⁸

3 32. Defendant Google Ireland Limited is a limited company organized under the laws of
4 Ireland with its principal place of business in Dublin, Ireland, and a subsidiary of Google LLC. Google
5 Ireland contracts with all app developers that distribute their apps through Google Play and is therefore
6 a party to the anticompetitive contractual restrictions at issue in this complaint.

7 33. Defendant Google Commerce Limited is a limited company organized under the laws
8 of Ireland with its principal place of business in Dublin, Ireland, and a subsidiary of Google LLC.
9 Google Commerce contracts with all app developers that distribute their apps through Google Play
10 Store and is therefore a party to the anticompetitive contractual restrictions at issue in this complaint.

11 34. Defendant Google Asia Pacific Pte. Ltd. is a private limited company organized under
12 the laws of Singapore with its principal place of business in Mapletree Business City, Singapore, and
13 a subsidiary of Google LLC. Google Asia Pacific contracts with all app developers that distribute their
14 apps through Google Play and is therefore a party to the anticompetitive contractual restrictions at
15 issue in this complaint.

16 35. Defendant Google Payment Corp. is a Delaware corporation with its principal place of
17 business in Mountain View, California, and a subsidiary of Google LLC. Google Payment provides
18 in-app payment-processing to Android app developers and users and collects up to a 30% commission
19 on many types of processed payments, including payments for apps sold through Google Play and in-
20 app purchases made within such apps.

21 V. RELEVANT FACTS

22 36. Google has injured Plaintiffs, the putative class of U.S. developers they seek to
23 represent, and competition in the relevant markets, *see* Part VII, by way of its unlawful behavior in the
24 U.S. markets for the sale of paid Android OS apps and for payment processing of in-app sales of digital
25 content, including but not limited to subscriptions. As the holder of an unlawfully obtained monopoly,
26

27 ¹⁷ <https://fortune.com/company/alphabet/fortune500/> (last accessed July 19, 2021).

28 ¹⁸ *Id.*

1 Google overcharges developers in these transactions by imposing a supracompetitive service fee on
2 each paid sale from Google Play Store and on sales of in-app digital products through (the mandatory)
3 Google Play Billing. Google has stifled competition in the U.S. market for Android OS app¹⁹
4 distribution by strongly inhibiting the emergence of vibrant—and viable—competitors, reinforcing its
5 monopoly power.

6 37. Additionally, Google requires app developers to sell at minimum prices. There is no
7 pro-competitive justification for this practice, and certainly none in an environment where Google Play
8 holds a dominant share of the U.S. market for Android OS app distribution services.

9 **A. The Market for Licensable Smart Mobile Operating Systems**

10 38. Smart mobile devices like smart phones and tablets enable users to connect wirelessly
11 to the Internet and perform many functions traditionally associated with desktop and laptop computers.
12 Consumers use smart mobile devices to browse the Internet, shop, access social media, stream music
13 and videos, read books, and play games.

14 39. Like desktop and laptop computers, smart mobile devices require an operating system
15 (an “OS”), which is a software product that controls the basic functions of the device. Without an
16 operating system, the user cannot operate the device or run other software. Operating systems designed
17 for smart mobile devices are “smart mobile OSs.”

18 40. In addition to the features typically found in a desktop or laptop computer OS, smart
19 mobile OSs include features such as a touchscreen, cellular, Bluetooth, and Wi-Fi capabilities, GPS
20 mobile navigation, cameras, video cameras, speech recognition capability, voice recorders, music
21 players, personal digital assistants and other features.

22 41. Licensable smart mobile OSs constitute a distinct product market. Although desktop
23 and laptop computers, early mobile phones (like flip phones) and game consoles also use operating
24 systems, those operating systems are not compatible with smart mobile devices and are not included
25 in the relevant market. From the demand side, the manufacturers of smart mobile devices cannot use
26

27 ¹⁹ Throughout this complaint, references to “Android OS apps” also refer to in-app purchases and
28 paid subscriptions.

1 the operating systems found in computers, older flip phones, or game consoles to power their smart
2 mobile devices. From the supply side, any OS developer that switched from a computer, flip phone, or
3 game console-compatible OS to a smart mobile OS would have to invest substantial time and money
4 in redesigning the operating system to account for the specific functionalities of smart mobile devices.

5 42. As the Congressional committee recently found, Google has “durable and persistent
6 market power” in this “mobile operating system market.”²⁰ This was not a groundbreaking conclusion.
7 Following a years-long investigation, the European Commission (“EC” or “Commission”) concluded
8 in a July 18, 2018 decision that had Google abused its dominant power in the Android app distribution
9 market by tying Google Search to Google Play Store, and by tying Google Chrome to Google Play
10 Store and Google Search. The Commission ordered Google to pay a \$5.1 billion fine and to change its
11 practices. Google is currently appealing the decision. Notably, Google has publicly stated that it has
12 complied with the Commission’s conduct remedies by changing its contracts with manufacturers that
13 ship phones and tablets into the European Economic Area.

14 43. Google did not contest the Commission’s conclusion that smart mobile OSs constitute
15 a distinct product market.

16 44. Smart phone OSs and tablet OSs make up the smart mobile OS product market. From
17 the demand side, the same operating system, or similar versions of it, power both smartphones and
18 tablets. From the supply side, all the principal OS developers use the same operating system to power
19 both smartphones and tablets. Apple, for example, which makes both the operating system and
20 hardware for its smartphones and tablets, has confirmed that it uses a single OS for its iPhone and iPad.
21 And Google did not contest the European Commission’s conclusion that smart phone and tablet OSs
22 belong in the same product market.

23 45. OEMs preinstall smart mobile OSs on devices before selling them to retailers and end
24 users. Most device manufacturers do not develop their own OSs but instead license Google’s Android
25 OS. The most widely used mobile non-Android OS outside of China is Apple’s iOS. But because
26
27

28 ²⁰ House Report at 94.

1 Apple manufactures its own smart phones and tablets and does not license its operating system to
2 OEMs, Apple's iOS is not an option for OEMs.

3 46. Non-licensable smart mobile OSs (like Apple's iOS) do not belong to the same product
4 market as licensable smart mobile OSs. From the demand side, OEMs cannot obtain a license to
5 preinstall Apple's iOS because Apple does not license iOS to OEMs. As even Google has conceded,
6 OEMs cannot switch to non-licensable OSs such as iOS.

7 47. Apple's strategy of remaining vertically integrated within its "walled garden" and
8 selling luxury products to loyal customers has been wildly successful. What other company has
9 exceeded a market capitalization of \$2 trillion? As device manufacturer Nokia put it: "Apple has no
10 incentives to enter the market for licensable OS[s] by starting to license iOS to third-party device
11 manufacturers. This is because Apple currently holds a monopoly over the supply of iOS compatible
12 devices. Apple makes most of its mobile profits with device sales and opening the system for third
13 party device manufacturer competition would be likely to erode Apple's device profits. [...] Apple
14 does not need to expand its ecosystem in order to attract developers."²¹

15 48. The European Commission concluded that Apple's iOS "exercises an insufficient
16 indirect constraint on Google's dominant position in the worldwide (excluding China) market for
17 licensable smart mobile OSs," confirming that iOS should not be included in the relevant market for
18 licensable smart mobile OSs.²²

19 49. Google has monopoly power in the market for licensable smart mobile OSs. This
20 monopoly power is demonstrated by Google's market share, the existence of high barriers to entry and
21 expansion, the lack of countervailing buyer power, and the lack of constraint posed by non-licensable
22 smart mobile OSs like Apple's iOS.

23
24
25 ²¹ Statement in Intervention by Bundesverband Digitalpublisher und Zeitungsverleger e.V.
(*Google LLC v. European Comm'n*), Case No. T-604/18, at ¶ 41 n.31 (June 26, 2020) ("BDZV
Intervention").

26 ²² See European Commission, *Google Android*, Case AT 40099, Commission Decision of 18 July
27 2018, at ¶243, §§7.3.5 & 9.3.4, available at
28 https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf (last accessed
Oct. 21, 2020).

1 50. The EC found that, excluding China, the Android OS is installed on more than 95% of
2 smart mobile devices with licensed mobile OSs worldwide. In the United States, that percentage
3 appears to be in excess of 95%. As of July 2020, 98.85% of smartphones with licensed mobile OSs
4 were powered by Android, compared to just 0.15% for other licensed mobile OSs (Samsung's share
5 was 0.11%; Windows was 0.02%, and "unknown" was 0.02%). For that same period, Windows, Linux
6 and "unknown" licensable mobile OSs collectively powered only 0.17% of tablets, leaving the
7 remaining 98.83% to Google. There also has been very little competitor entry, while at the same time
8 "once-competitive mobile operating systems like Nokia, BlackBerry, and Microsoft struggled to
9 survive as Apple and Google grew more dominant, eventually exiting the marketplace altogether."²³
10 The only other licensable smart mobile OSs that have entered the market since 2011 have not made a
11 dent in Google's market share. The most prominent competitor—Microsoft—dropped below 2%
12 market share in 2016 and exited the market shortly thereafter.²⁴ The other providers, including Firefox
13 OS, Tizen and Sailfish, have been unable to gain more than 0.2% market share. As the House
14 Subcommittee reported, "[i]ndustry experts have testified before the Subcommittee that the 'reality is
15 that it would be very difficult for a new mobile phone operating system today' to compete with Apple
16 and Google, 'even if it offered better features.'"²⁵

17 51. The market for licensable smart mobile OSs is characterized by high barriers to entry
18 and expansion. First, development of a smart mobile OS requires an enormous investment of time and
19 money in research and development. Google says, for example, that it subsidized the development of
20 Android through advertising revenue derived from Google Search and Chrome.

21 52. According to findings by the Commission, Google's monopoly power in OSs is also
22 supported by the lack of countervailing buyer power among OEMs. There are numerous OEMs that
23

24 ²³ House Report at 106; *see id.* at 105 ("Over the past decade, several large technology companies
25 have attempted and failed to leverage their large user bases to compete against Apple and Google in
the mobile OS market.") (citation omitted).

26 ²⁴ *See id.* at 106 ("In 2017 Microsoft abandoned its mobile OS business, and by that time, more
27 than 99% of all new smartphones were running on iOS or Android and market observers expressed no
confidence that new competition would emerge.") (citation omitted).

28 ²⁵ *Id.* at 104 (citations omitted).

1 license Android OS for preinstallation in smart mobile devices. Of these, only Samsung had more than
2 a 10% market share, demonstrating the diffusion of buyer power. This lack of buyer power is further
3 evidenced by the apparently limited nature of the negotiations that occur between Google and OEMs
4 when OEMs enter into licensing agreements with Google. The agreements are signed online, with the
5 device manufacturer representative merely providing contact information and clicking in the relevant
6 box accepting the terms and conditions of the agreement.

7 53. Nor does Apple's non-licensable iOS impose sufficient indirect constraints to
8 undermine Google's monopoly power in the market for licensable smart mobile OSs. As the
9 Commission concluded, there are several reasons why Apple's iOS does not inhibit Google's
10 monopoly power. First, "there is significant inertia in the choice of operating system and smartphone
11 brand."²⁶ High switching costs deter consumers from switching between OS systems. More
12 importantly, even if some consumers switched from Android to iOS devices, as long as there is no
13 significant changes in market shares of Android and iOS devices, the high switching cost for device
14 manufacturers would be maintained. The high switching costs reflect Apple's and Google's different
15 commercial strategies. Apple's vertically integrated approach is aimed at keeping its affluent, loyal
16 customers in Apple's ecosystem, and purchasing its hardware and services, which generates the bulk
17 of Apple's revenue. Of Apple's revenue for the third quarter of 2020, 78% was based in hardware such
18 as iPhones, MacBooks, iPads and wearables. Google, on the other hand, wants to put Android devices
19 in as many hands as possible to ensure its continued domination of search advertising, which generates
20 the bulk of Google's revenue. In the first quarter of 2018, for example, 82% of Google's revenue came
21 from advertising. As the Netherlands Authority for Consumers & Markets put it in a recent study²⁷:
22 "In contrast to Apple and Microsoft, Android was not developed by Google to generate revenues
23 through the sale of software or hardware. Android, apps, and the Play Store are only a means to an end
24 to become embedded everywhere on the internet, and to increase the audience for its services so it can

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26 ²⁶ Grzybowski, L. and Nicolle, A., 2021. Estimating Consumer Inertia in Repeated Choices of
Smartphones. *The Journal of Industrial Economics*, 69(1), pp.33-82 at p. 34.

27 ²⁷ The Netherlands Authority for Consumers & Markets, "Market Study into Mobile App Stores"
28 (April 11, 2019) ("Market Study") at 28, <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf> (last accessed Oct. 21, 2020).

1 create more advertising space.” As the House Subcommittee found, information collected via Android
2 and Google Play Store gave Google “intimate user profiles, spanning billions of people,” which are “a
3 key source of Google’s advantage in its ad business.”²⁸

4 **B. The Google Play Store**

5 54. Google introduced its app store, then known as Android Market, in or about August
6 2008.²⁹ Within weeks, Google, HTC, and T-Mobile released the first Android OS smartphone, the T-
7 Mobile G-1.³⁰ This very first released-to-consumer Android OS smartphone came pre-loaded with the
8 Android Market (the predecessor to Google Play Store). As T-Mobile’s September 2008 press release
9 explained:

10 **Android Market:**

11 The T-Mobile G1 is the first phone to offer access to Android Market,
12 which hosts unique applications and mash ups of existing and new
13 services from developers around the world. With just a couple of short
14 clicks, customers can find and download a wide range of innovative
15 software applications — from games to social networking and on-the-
16 go shopping — to personalize their phone and enhance their mobile
17 lifestyle. When the phone launches next month, dozens of unique, first-
18 of-a-kind Android applications will be available for download on
19 Android Market³¹

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²⁸ House Report at 217-18.

24 ²⁹ Google launched Android Market, Google Play’s predecessor for Android OS Apps, on or
25 about August 28, 2008. (*See, e.g.*, [https://www.cnet.com/news/google-announces-android-market-
for-phone-apps/](https://www.cnet.com/news/google-announces-android-market-for-phone-apps/) (dated Aug. 28, 2008) (last accessed Aug. 15, 2020).)

26 ³⁰ “T-Mobile Unveils the T-Mobile G1—the First Phone Powered by Android,” dated September
27 22 (and 23), 2008, [https://www.t-mobile.com/news/t-mobile-unveils-the-t-mobile-g1-the-first-phone-
powered-by](https://www.t-mobile.com/news/t-mobile-unveils-the-t-mobile-g1-the-first-phone-powered-by) (last accessed Aug. 15, 2020).

28 ³¹ *Id.*

1 55. Next, on or about March 6, 2012,³² Google introduced its Google Play Store, which
2 both succeeded and subsumed its predecessor, Android Market, adding digitized music and books to
3 the store’s offerings.³³ It now carries movies and television programs as well.³⁴

4 56. To sell products through Google Play Store, app developers³⁵ must enter into the
5 Google Play Developer Distribution Agreement (“DDA”).³⁶ The developer then uploads its product to
6 Google servers for review, testing (if any), limited release (if any), and production-release for sale to
7 consumers in the store.³⁷ As part of the process, the developer “authorize[s] Google on a non-exclusive,
8 worldwide, and royalty-free license to . . . reproduce, perform, display, analyze, and use [the
9 developer’s] Products” “in the manner indicated in the Play Console.”³⁸ The Google DDA states that
10 Google agrees to “display and make [developers’] Products available for viewing, download, and
11 purchase by users”³⁹ in Google Play for a “‘Service Fee,’ . . . charged on the sales price and apportioned
12 to the Payment Processor and, if one exists, the Authorized Provider.”⁴⁰

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15 ³² <https://googleblog.blogspot.com/2012/03/introducing-google-play-all-your.html> (last accessed
16 Aug. 15, 2020).

17 ³³ *Id.* (“Starting today, Android Market, Google Music and the Google eBookstore will become
18 part of Google Play. On your Android phone or tablet, we’ll be upgrading the Android Market app to
19 the Google Play Store app over the coming days.”).

20 ³⁴ https://play.google.com/store/apps/details?id=com.google.android.videos&hl=en_US (last
21 accessed Aug. 15, 2020).

22 ³⁵ Except presumably Google, which also offers its own products—including paid products—in
23 the Google Play store. (See [https://play.google.com/store/apps/details?id=com.google.android.apps.
24 youtube.music&hl=en](https://play.google.com/store/apps/details?id=com.google.android.apps.youtube.music&hl=en) (offering YouTube Music app in Google Play, and referring to the paid Music
25 Premium version that is also available) (last accessed Aug. 15, 2020).

26 ³⁶ Dev. Agr. (current agreement, effective as of Nov. 17, 2020) (“Dev. Agr.”) (last accessed July
27 20, 2021). For the pre-November 2020 version, see [https://play.google.com/about/developer-
28 distribution-agreement/archive.html](https://play.google.com/about/developer-distribution-agreement/archive.html) (last accessed July 20, 2021).

29 ³⁷ *Id.* ¶ 4.2 (“You are responsible for uploading Your Products to Google Play, providing required
30 Product information and support to users, and accurately disclosing the permissions necessary for the
31 Product to function on user Devices.”) (last accessed July 20, 2021); <https://support.google.com/googleplay/android-developer/answer/113469?hl=en> (“Upload an app”)
32 (last accessed Aug. 15, 2020); [https://support.google.com/googleplay/android-developer/answer/
33 7159011?hl=en](https://support.google.com/googleplay/android-developer/answer/7159011?hl=en) (“Prepare & roll out releases”) (last accessed Aug. 15, 2020).

34 ³⁸ *Id.* ¶ 5.1.

35 ³⁹ *Id.* ¶ 2.1.

36 ⁴⁰ *Id.* ¶ 3.4.

57. Developers ostensibly set prices for products sold in Google Play Store. But Google's DDA (more specifically, its incorporated terms or policies) requires that non-zero-priced products be sold to U.S. consumers at a regular price of no less than \$0.99 (and no more than \$400).⁴¹ For example, developers cannot sell apps in the United States at \$0.69. The DDA has allowed for lower minimum prices in 18 other countries since 2015).⁴² Thus, an app that must be priced at no lower than \$0.99 for U.S. customers can be priced at approximately \$0.13 for Indian purchasers (as of August 15, 2020).⁴³

58. Developers sell their apps and in-app digital content^{44,45} directly through the Google Play Store (for apps) and Google Play Billing (for in-app digital content). Consumers select apps from the displays that Google organizes and sets up; tender payments to Google; and download apps from the Google Play Store to their devices.⁴⁶

⁴¹ *Id.* ¶ 5.2 (referring to sales to be made “in the manner indicated in the Play Console”). The Play Console, and Play Console help sections, set forth the minimum pricing requirements: *see* <https://support.google.com/googleplay/android-developer/answer/6334373?hl=en> (“Set up prices & app distribution”) (last accessed July 20, 2021); [https://support.google.com/googleplay/android-developer/table/3541286?](https://support.google.com/googleplay/android-developer/table/3541286?hl=en) (“Supported locations for distribution to Google Play users”) (last accessed July 20, 2021).

⁴² *See, e.g.*, “Google slashes minimum app prices to way below \$0.99 in 17 countries,” *Mashable*, Nov. 18, 2015, available at: <https://mashable.com/2015/11/18/google-minimum-app-prices/#JluQdT6ebEqd> (last accessed Aug. 15, 2020).

⁴³ <https://support.google.com/googleplay/android-developer/table/3541286> (apps for Indian consumers may be priced from between 10.00 INR to 26,000.00 INR, or approximately \$.13 to \$347.11, as of Aug. 15, 2020—see <https://transferwise.com/us/currency-converter/inr-to-usd-rate?amount=10> (last accessed Aug. 15, 2020)). There is no evidence that Google is somehow losing money by way of this contractual practice. But even if it were, then it would mean that U.S. developers (and consumers) are subsidizing app purchases in other countries (through higher U.S. minimum prices) because of Google's restraint of trade.

⁴⁴ *See, e.g.*, https://support.google.com/googleplay/answer/1061913?hl=en&ref_topic=7049688# (“Make in-app purchases in Android apps”) (“With some apps, you can buy additional content or services within the app. We call these ‘in-app purchases.’ Here are some examples of in-app purchases: A sword that gives you more power in a game . . .”) (last accessed Aug. 15, 2020).

⁴⁵ https://support.google.com/googleplay/answer/2476088?hl=en&ref_topic=1689236 (“Subscribe to services or content”) (referring to subscriptions to magazines, newspapers, and other material, and explaining how to subscribe) (last accessed Aug. 15, 2020).

⁴⁶ *See, e.g.*, https://support.google.com/googleplay/answer/4355207?hl=en&ref_topic=3364260&co=GENIE.Platform%3DAndroid&oco=1 (“Get started with Google Play”—Android) (last accessed Feb. 1, 2019); https://support.google.com/googleplay/answer/113409?hl=en&ref_topic=3365058 (“Get Android apps and digital content from the Google Play Store”) (“1. Open the Google Play Store app. 2. Search or browse for content. 3. Select an item. 4. Tap Install (for free items) or the item's price. 5. Follow the onscreen instructions to complete the transaction and get the content.”) (last accessed Aug. 15, 2020).

59. Developers, in turn, pay Google a “service fee” of 30% (or 15%) on each paid sale of an app and most in-app digital products.

60. Developers are directly injured by Google’s supracompetitive service fee—a fee that would be lower in a competitive market free of Google’s restraints.

C. While the Android OS is Superficially Open-Source, Google Leveraged a Thicket of Contracts and Incentive Payments to Maintain an Iron Grip on the Ecosystem and to Cement Play’s Dominance.

61. Google owns and controls the Android OS. Ostensibly, the code for the operating system itself is open source. According to Google, anyone can download, use, and modify the Android OS source code, as long as Google allows it. Google calls this aspect of its OS the Android Open Source Project (AOSP). As Google⁴⁷ puts it:

Android is an open source operating system for mobile devices and a corresponding open source project led by Google. This site and the Android Open Source Project (AOSP) repository offer the information and source code needed to create custom variants of the Android OS, port devices and accessories to the Android platform, and ensure devices meet the compatibility requirements that keep the Android ecosystem a healthy and stable environment for millions of users. . . .⁴⁸

62. But the open-source code enables only a device’s most basic functions. As Google explains: “The Android Open-Source Project (AOSP) is the core software stack behind the Android OS and consists of the operating system, middleware, and open-source apps like a phone dialer, email, and messaging. Mobile operators, device makers, and developers can use this to build devices and apps.”⁴⁹

63. Google obtained and maintains monopoly power in the U.S. market for Android OS apps through, in part, three interlocking types of contractual agreements with OEMs: (1) Anti-

⁴⁷ “Android was originated by a group of companies known as the Open Handset Alliance, led by Google. . . . The Android Open Source Project is led by Google, who maintains and further develops Android.” (<https://source.android.com/setup/> (last accessed Aug. 15, 2020).)

⁴⁸ <https://source.android.com/> (last accessed Aug. 15, 2020).

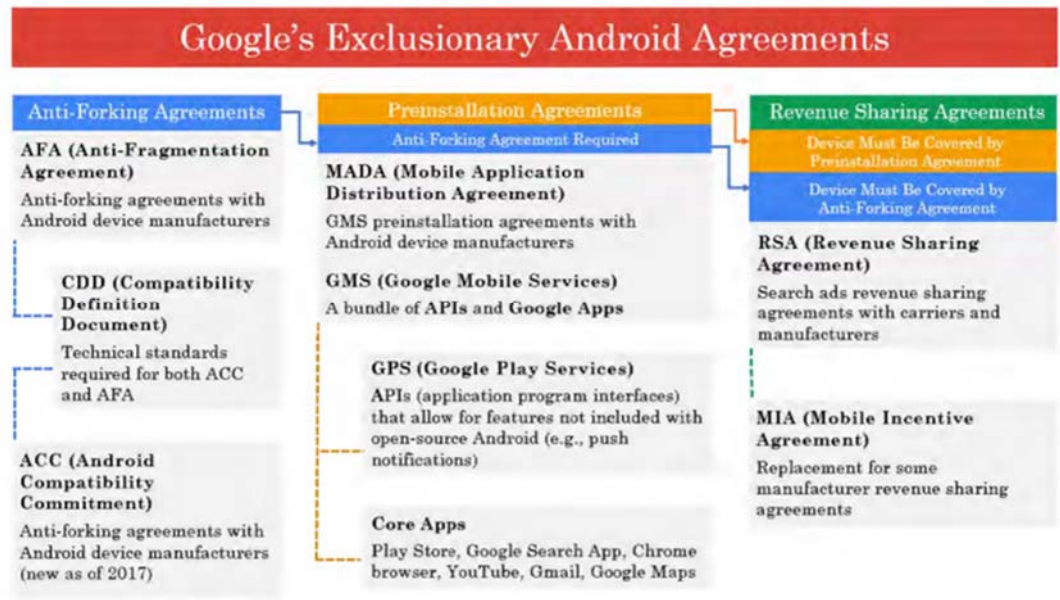
⁴⁹ “Understanding Android,” <https://www.android.com/everyone/facts/> (last accessed Aug. 15, 2020).

1 Fragmentation Agreements (“AFAs”) and Android Compatibility Commitments (“ACCs”)⁵⁰, which
2 generally prohibit “forking” (i.e., making or distributing versions of Android not compliant with
3 Google technical standards); (2) MADA agreements (“MADAs”), which grant access to key Google
4 apps and critical application program interfaces (“APIs”); and (3) revenue-sharing agreements, in the
5 form of Mobile Incentive Agreements (“MIAs”) and Revenue Share Agreements (“RSAs”), which
6 allow OEMs to share in Google’s revenue in exchange for abiding by various restrictions in favor of
7 Google. Under the RSAs and MIAs, Google shares its search ad revenue in exchange for OEMs’
8 agreement to use Google search as the sole preset search service on a list of “search access points”
9 and, under certain MIAs, to forego preinstalling rival general search services and comply with certain
10 “incentive implementation requirements.”⁵¹ And as explained in more detail below, since 2019,

11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 64. These agreements are explicitly linked. An OEM can enter a MADA Agreement and
16 receive access to key Google apps and critical application program interfaces only if it first enters an
17 AFA or ACC. Similarly, an OEM can enter an RSA or MIA only if it first enters a MADA:
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25 ⁵⁰ Before 2017, Google required distributors to sign AFAs. It has since shifted its anti-forking
26 restrictions to ACCs, which allow manufacturers to build devices or components for third parties to
27 sell to consumers that do not comply with Google’s technical standards (while still restricting
signatories from manufacturing or distributing forks of their own, or from making “forked” devices on
behalf of third parties).

28 ⁵¹ These implementation requirements sometimes mandate, among other things, preloading up to
fourteen additional Google apps on MIA-enrolled devices.



65. Google's logic is simple: what makes a mobile device marketable is its apps. Google has developed several popular apps, including YouTube, Google Maps, Gmail, and Google Play Store, that are not open source. Any OEMs seeking access to those key apps must get a license, which is available only to OEMs that agree (pursuant to the MADA and license agreements) to preinstall these Google apps on their Android OS devices. Indeed, for devices sold into the United States, these Google apps are bundled as a suite, so OEMs that want to license one app must preinstall them all.⁵² Google touts this program as Google Mobile Services ("GMS"):

The best of Google, right on your devices

Google Mobile Services brings Google's most popular apps and APIs to your Android devices.

Google's most popular apps, all in one place

Google Mobile Services (GMS) is a collection of Google applications and APIs that help support functionality across devices. These apps work together seamlessly to ensure your device provides a great user experience right out of the box.⁵³

⁵² "After building an Android compatible device, consider licensing Google Mobile Services (GMS), Google's proprietary suite of apps (Google Play, YouTube, Google Maps, Gmail, and more) that run on top of Android. GMS is not part of the Android Open Source Project and is available only through a license with Google." (<https://source.android.com/compatibility/overview> (last accessed Aug. 15, 2020).)

⁵³ <https://www.android.com/gms/> (last accessed Aug. 15, 2020).

66. GMS is a crucial element of Google’s domination of the Android ecosystem. Indeed, the GMS restrictions “have strictly limited—if not excluded—third-party apps from being preinstalled. In this way, Google’s licensing agreements not only preclude the vast majority of third-party apps from being preinstalled, but they also funnel those apps into the Google Play Store, subject to Google’s commissions and arbitrary enforced policies.”⁵⁴

67. Over time, Google has moved more and more apps into its proprietary, non-open-source universe of apps, as well as services that make third-party apps work effectively, in ways that users have come to expect (e.g., by calling up map services, now through the proprietary Google Maps). As one analyst describes Google’s machinations:

Over time, Google began migrating applications – like Search, Music, and the Calendar – out of AOSP and into GMS. Any OEM wanting to use AOSP to build its own Android fork would now have to build their own versions of these apps, on top of email, maps, and so on. (*Ars Technica* has a good rundown of the application migration here⁵⁵.) On top of that, the device would lack the Google services APIs that lots of third-party apps need. And Google didn’t stop there. Google Mobile Services mutated into Google Play Services⁵⁶ in September 2012.

A fork in the road: Why Google Play Services is key to understanding the ‘forking’ question

⁵⁴ House Report at 222-23.

⁵⁵ <https://arstechnica.com/gadgets/2018/07/googles-iron-grip-on-android-controlling-open-source-by-any-means-necessary/> (last visited July 19, 2021).

⁵⁶ Google Play services is different from the Google Play store. In fact, one method of distribution is via Google Play. (See, e.g., https://play.google.com/store/apps/details?id=com.google.android.gms&hl=en_US (“Google Play services is used to update Google apps and apps from Google Play. This component provides core functionality like authentication to your Google services, synchronized contacts, access to all the latest user privacy settings, and higher quality, lower-powered location based services.”) (last accessed Aug. 15, 2020).) In its Overview of Google Play Services, Google writes:

With Google Play services, your app can take advantage of the latest, Google-powered features such as Maps, Google+, and more, with automatic platform updates distributed as an APK through the Google Play store. This makes it faster for your users to receive updates and easier for you to integrate the newest that Google has to offer.

* * *

The client library contains the interfaces to the individual Google services and allows you to obtain authorization from users to gain access to these services with their credentials.

<https://developers.google.com/android/guides/overview> (last accessed Aug. 15, 2020).

1 Back in May 2013 at the Google I/O Keynote there was no mention of
2 an Android upgrade. Instead, Google announced a bunch of new features
3 to be rolled out to Android devices via Google Play Services. Google
4 had started to move away from Android-as-platform to Play Services-
5 as-platform. As Ron Amadeo writes: ‘Play Services has system-level
6 powers, but it’s updatable. It’s part of the Google apps package, so it’s
7 not open source. OEMs are not allowed to modify it, making it
8 completely under Google’s control... If you ever question the power of
9 Google Play Services, try disabling it. Nearly every Google App on your
10 device will break.’ It is ‘a single place that brings in all of Google’s APIs
11 on Android 2.2 and above.’ Things like Play Game services, Google
12 Cloud Messaging and fused location services are all handled by Play
13 Services, and not the OS.

14 68. As noted above, one important condition for access to GMS is that manufacturers agree
15 to comply with so-called compatibility requirements set forth in AFAs and ACCs. As Google puts it:

16 We ask GMS partners to pass a simple compatibility test and adhere to
17 our compatibility requirements for their Android devices. In turn, your
18 users enjoy greater app reliability and continuity.⁵⁷

19 69. Ostensibly, Google seeks compatibility to help assure that software works across a
20 variety of devices. But Google has gone further than merely requiring compatibility testing for devices
21 on which manufacturers wish to install the GMS suite. As part of its strategy to maintain as much
22 dominance over the Android ecosystem as possible, Google refuses (as a condition of its MADA
23 agreements) to license GMS to manufacturers who develop “Android forks”—variants of the official
24 Android OS published by Google. As the European Commission put it with respect to the record
25 antitrust fine it imposed on Google in 2018 (discussed *infra*⁵⁸):

26 Google has prevented device manufacturers from using any alternative
27 version of Android that was not approved by Google (Android forks). In
28 order to be able to pre-install on their devices Google’s proprietary apps,
including the Play Store and Google Search, manufacturers had to
commit not to develop or sell even a single device running on an
Android fork. The Commission found that this conduct was abusive as

⁵⁷ <https://www.android.com/gms/> (last accessed July 20, 2021).

⁵⁸ See Section V.F.1, *infra*.

1 of 2011, which is the date Google became dominant in the market for
2 app stores for the Android mobile operating system.⁵⁹

3 70. According to the European Commission, this has thwarted even as powerful a potential
4 competitor as Amazon. Manufacturers that want access to GMS are prohibited by way of the AFA
5 contractual terms from building even a single device based on Amazon's Android OS fork, known as
6 Fire OS. As discussed below, this means that Amazon is denied another way to distribute its own
7 Android OS app store.⁶⁰

8 71. There is no justifiable basis for Google's restraints with regard to Android forks. As the
9 European antitrust authorities found, Google's stated aim—to help ensure that software works across
10 various Android OS devices—does not require or justify the restraints on competition that Google
11 forces upon OEMs:

12 The Commission also assessed in detail Google's arguments that these
13 restrictions were necessary to prevent a “fragmentation” of the Android
14 ecosystem, and concluded that these were not well founded. First,
15 Google could have ensured that Android devices using Google
16 proprietary apps and services were compliant with Google's technical
17 requirements, without preventing the emergence of Android forks.
18 Second, Google did not provide any credible evidence that Android
19 forks would be affected by technical failures or fail to support apps.⁶¹

20 72. Google further exercises control over the market by bundling the Google Play Store
21 with Google Play Services, a proprietary software layer that runs in the background on Android. It
22 provides application programming interfaces that enable apps to integrate with other apps and with

23 ⁵⁹ See “Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android
24 mobile devices to strengthen dominance of Google's search engine,” July 18, 2018,
25 http://europa.eu/rapid/press-release_IP-18-4581_en.htm (last accessed Aug. 15, 2020).

26 ⁶⁰ Per the European Commission:

27 This practice reduced the opportunity for devices running on Android forks to be
28 developed and sold. For example, the Commission has found evidence that Google's
conduct prevented a number of large manufacturers from developing and selling
devices based on Amazon's Android fork called “Fire OS.”

In doing so, Google has also closed off an important channel for competitors to
introduce apps and services, in particular general search services, which could be pre-
installed on Android forks.

http://europa.eu/rapid/press-release_IP-18-4581_en.htm (emphasis added).

⁶¹ *Id.*

1 Google services. Many of these Google services are critical to the functioning of apps. Without Google
2 Play Services, for example, apps cannot provide crucial functionalities like displaying “push
3 notifications” or locating a user’s location on a map—thus rendering them, in many cases,
4 commercially irrelevant.⁶² As another example, more than half of the apps in Google Play use Google’s
5 cloud messaging service; nearly half use AdMob, Google’s mobile advertising service. Apps cannot
6 access these functionalities without Google Play Services. As the European Commission concluded,
7 without Google Play Services, “many apps would either crash, or lack important functions.”

8 73. Market participants agree that access to the Google Play Services bundle is critical.
9 According to one mobile network operator, “without [Google Play Services] the Android OS would
10 be more like a feature phone OS than a smartphone OS.” (“Feature phones,” colloquially known as
11 “dumb phones,” are earlier-generation phones with simple operating systems and user interfaces).

12 74. Google does not license Google Play and Google Play Services separately. They can
13 only be licensed together, thus further entrenching Google Play’s dominance to the exclusion of
14 competitors.

15 75. Google has also entered into separate [REDACTED]
16 [REDACTED] that date to the earliest days of Android in 2009 and are aimed
17 at [REDACTED]
18 [REDACTED]

19 76. Specifically, shortly after the launch of the Android Market (the predecessor to Google
20 Play Store), Google began [REDACTED]
21 [REDACTED]
22 [REDACTED]

23
24 ⁶² “A [push] notification is a message that pops up on the user’s device. Notifications can be
25 triggered locally by an open application, or they can be “pushed” form the server to the user even when
26 the app is not running. They allow [an app’s] users to opt-in to timely updates and allow [apps] to
27 effectively re-engage users with customized content. Push Notifications API lets the app display
28 system notifications to the user. The Push API allows a service worker to handle Push Messages from
a server, even with the app is not active. The Notification and Push APIs are built on top of the Service
Worker API, which responds to push message events in the background and relays them to [an]
application.” *Introduction to Push Notifications*, GOOGLE,
<https://developers.google.com/web/ilt/pwa/introduction-to-push-notifications>.

1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 77. This plan was successful. As Google explained proudly in a 2014 presentation, quoting
9 a senior executive: [REDACTED]

10 [REDACTED] And having succeeded, [REDACTED]
11 [REDACTED] The numbers have only
12 increased since.

13 78. On top of this, Google prohibits app developers that distribute apps through the Google
14 Play Store from distributing any competing *app store* through Google Play. Although this would be a
15 logical and effective way to distribute app stores—which are themselves mobile apps—Google
16 prohibits this distribution method to maintain its monopoly in the app-distribution market.

17 79. Google imposes this restraint through provisions of the DDA, which Google requires
18 all app developers to sign before they can distribute their apps through Google Play Store. Each of the
19 Defendants is a party to the DDA.

20 80. Section 4.5 of the DDA provides that developers “may not use Google Play to distribute
21 or make available any Product that has a purpose that facilitates the distribution of software
22

23 ⁶³ For example, a 2011 agreement between [REDACTED] and Google states that [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]

27 ⁶⁴ For example, Google’s [REDACTED] required [REDACTED]
28 [REDACTED] During negotiations Google [REDACTED]

1 applications and games for use on Android devices outside of Google Play.”⁶⁵ In other words, no app
2 on the Google Play Store may compete in the Android app distribution market. The DDA further
3 reserves to Google the right to remove and disable any Android app that it determines violates this
4 requirement. The DDA is non-negotiable, and developers that seek access to Android users through
5 the Google Play Store must accept Google’s standardized contract of adhesion. The House
6 Subcommittee reported developers’ allegations that Google has used “rule violations as a pretext for
7 retaliatory conduct,” and that “challenging a Play Store decision is like navigating a black box,”
8 because Google does not explain its determination that a rule violation supposedly occurred.⁶⁶

9 81. Google has imposed this restriction since at least 2009, when the section was labeled
10 “Non-Compete” and applied to distribution through Android Market (Google Play Store’s
11 predecessor). Over time, Google has tightened the anticompetitive restrictions in section 4.5 in
12 response to specific threats posed by app-distribution competitors such as Amazon and Facebook.

13 82. The original language of the DDA was limited to apps that had a “primary purpose” of
14 facilitating distribution of apps outside the Android Market, which allowed some flexibility for
15 developers to use Google’s app store to distribute Android apps that also linked to apps that could be
16 downloaded outside Google’s app store. In 2012, however, when Amazon attempted to distribute its
17 app store to consumers directly through its Amazon Store app, distributed on the Google Play Store,
18 Google took swift action. At the time, Amazon used a browser within the app to direct users to a page
19 to download Android application files, which use the extension “.apk.” This effectively allowed
20 customers to download Amazon apps without going through Google Play Store. Google alleged this
21 was a violation of the DDA agreement and threatened to remove Amazon from the Play Store, days
22 before Black Friday.

23 83. Wise to the threat of similar entrants, Google eventually changed its policy in direct
24 response to the Amazon Store app. In September 2014, Google updated Section 4.5 of the DDA to
25 “provide additional clarity around the distribution of third-party apps on Google Play to maintain a
26

27 ⁶⁵ Dev. Agr. ¶ 4.5

28 ⁶⁶ House Report at 222.

1 secure ecosystem.” Eventually, Amazon was forced to disable app distribution functionality from its
2 App distributed through Google Play Store, and its app store was only available via sideloading, a
3 process that makes it significantly harder to reach Android users for the reasons discussed in Section
4 V.F.2.

5 **D. Google Is a Monopolist in the U.S. Markets for Android OS App Distribution and In-App**
6 **Payment Processing.**

7 84. Through its contracts and technological barriers, Google has obtained and maintains a
8 monopoly in the U.S. markets for Android OS apps and in-app payment processing. That monopoly
9 power is demonstrated by Google’s overwhelming market share, the existence of high barriers to entry
10 and expansion, and Google’s ability to extract supracompetitive service fees (of generally 30%) from
11 app developers for all transactions. Apple’s App Store is not in the relevant product market because
12 apps distributed on it work only on Apple’s iOS devices. Apple’s app store thus does not directly
13 compete with Google Play and does not discipline Google’s monopoly power in the alleged markets.

14 85. While Google resists publicly disclosing its share of the U.S. market for Android OS
15 app distribution—going so far as to tell its employees not to “define markets or estimate market
16 shares”⁶⁷—its share of that market can be inferred from the number of devices sold with Google Play
17 Store preinstalled as well as the number of apps downloaded from Google Play Store. Not surprisingly,
18 the European Commission found that Google Play Store is preinstalled by OEMs⁶⁸ on nearly all—
19 more than 90%—of Android mobile devices sold outside of China. No other Android app store comes
20 close to that number of preinstalled users.⁶⁹ Samsung’s “Galaxy” app store, which is a distant second

21 ⁶⁷ Five Rules of Thumb for Written Communications, The Markup,
22 [https://www.documentcloud.org/documents/7016657-Five-Rules-of-Thumb-for-Written-](https://www.documentcloud.org/documents/7016657-Five-Rules-of-Thumb-for-Written-Communications.html)
23 [Communications.html](https://www.documentcloud.org/documents/7016657-Five-Rules-of-Thumb-for-Written-Communications.html) (last accessed Jul. 20, 2021); To Head Off Regulators, Google Makes Certain
24 Words Taboo, The Markup, Aug. 7, 2020, Adrienne Jeffries, [https://themarkup.org/google-the-](https://themarkup.org/google-the-giant/2020/08/07/google-documents-show-taboo-words-antitrust)
25 [giant/2020/08/07/google-documents-show-taboo-words-antitrust](https://themarkup.org/google-the-giant/2020/08/07/google-documents-show-taboo-words-antitrust) (last accessed Jul. 20, 2021); *see also* Google Employees Are Free to Speak Up. Except on Antitrust, The New York Times, Oct. 13,
2020, Daisuke Wakabayashi, [https://www.nytimes.com/2020/10/13/technology/google-employees-](https://www.nytimes.com/2020/10/13/technology/google-employees-antitrust.html)
[antitrust.html](https://www.nytimes.com/2020/10/13/technology/google-employees-antitrust.html).

26 ⁶⁸ *See, e.g.*, <https://support.google.com/googleplay/answer/1727131?hl=en> (Google Play Help
27 screen, providing 852-page list of supported devices, including devices manufactured by Samsung,
HTC, LG, and Motorola, among many others) (last accessed Aug. 15, 2020).

28 ⁶⁹ According to a Google August 23, 2017 document, “Play is the world’s largest app platform,
with nearly 1.5 billion active users and a large, growing buyer base.”

1 to Google Play, is the only app store that comes preinstalled on more than 10% of smart mobile devices
2 outside of China, according to the European Commission.

3 86. The numbers underscore Google Play Store's dominance on OEM devices. In an
4 August 2019 presentation, for instance, Google estimated that Samsung made "~\$0.1B" in revenue on
5 its Galaxy Store, while Google had made [REDACTED]
6 [REDACTED]. These sales data indicate that Google Play Store had a 97.6% share of Android app distribution
7 even on Samsung phones. Elsewhere, Google has estimated that users spend only [REDACTED] of the time on
8 the Samsung Galaxy Store that they spend on the Play Store, and that the Galaxy Store does not
9 cannibalize the Play Store's revenue.

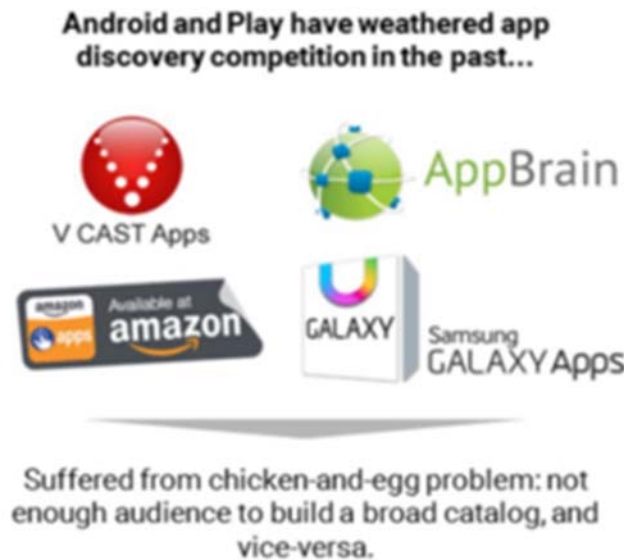
10 87. Google Play's market share is also demonstrated by the number of apps downloaded
11 from the store, 108.5 billion in 2020, and by the sheer number of apps available.⁷⁰ Simply put, no
12 other app store can reach as many Android users as Google Play Store. This is by design. As a result
13 of, among other things, Google requiring OEMs to preinstall Google Play, more than 90% of apps on
14 Android devices have been downloaded via Google Play Store. In October 2018, according to the
15 Netherlands Authority for Consumers & Markets, Google Play offered 3.3 million apps, compared to
16 about 700,000 offered by Aptoide, which is the second largest Android app store behind only Google
17 Play. As Amazon said in the Android case before the European Commission, "it has become
18 increasingly difficult over time to obtain and retain a competitive selection of apps because, as the Play
19 Store continues to grow by virtue of being preinstalled on all licensed Android devices, more and more
20 app developers have focused their development efforts on developing apps that use [Google Play
21 Services]."⁷¹

22 88. Because of their small shares of the user base, other existing Android app stores cannot
23 discipline Google's exercise of monopoly power in the Android app-distribution market. Indeed,
24

25 ⁷⁰ *Annual number of app downloads from the Google Play Store worldwide from 2016 to 2020*,
26 Statista, <https://www.statista.com/statistics/734332/google-play-app-installs-per-year/> (last visited
July 20, 2021).

27 ⁷¹ *Google Android*, Case AT.40099, Council Regulation (EC) 1/2003, July 18, 2018,
28 https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf (last accessed
July 20, 2021).

Google itself has recognized its advantage, boasting in a 2015 presentation that Amazon and Samsung's stores (among others) had so far failed because they faced a "chicken-and-egg problem":



89. A 2017 Google presentation on Amazon's App Store acknowledges the same dynamic: "If we were honest we would admit that most users and developers aren't consciously 'choosing' they are going with the default. If they really had to choose, how would they do that and would they choose us?"

90. The most dramatic proof of Google's monopoly power is its ability to impose on developers a supracompetitive service fee. As David Heinemeir Hansson, CTO and Cofounder of Basecamp, a small internet software company, testified recently before Congress, businesses should not be required to "hand over 30% of their revenue for the privilege" of selling software through Google Play Store; "[m]ost mobsters would not be so brazen as to ask for such an exorbitant cut."⁷² Hansson contrasted Google's cut to the fees his company pays to transact in the credit card processing market. "[W]e basically pay around 2% ... and there are countless competitors constantly trying to

⁷² Written Testimony of David Heinemeier Hansson Before the Committee on the Judiciary, Subcommittee on Antitrust, Commercial, and Administrative Law U.S. House of Rep., at 33, Jan 17, 2020, available at <https://www.govinfo.gov/content/pkg/CHRG-116hhrg40788/pdf/CHRG-116hhrg40788.pdf> (last accessed July 20, 2021).

1 win our business by offering lower rates. ... Mobile application stores are not a competitive market,
2 and the rates show.”⁷³

3 91. In the absence of Google’s entrenched monopoly, rivals could establish app stores that
4 would compete, among other dimensions, on price. The CEO of Epic Games, for example, has
5 suggested that they could run a store with as little as an 8% cut while remaining profitable.⁷⁴
6

7 92. A limited number of OEM app stores are present on Android smartphones running
8 Google Mobile Services—including the Samsung Galaxy store. But those stores are OEM-specific—
9 e.g., the Galaxy store is on Samsung devices only—and they do not competitively constrain Google’s
10 exercise of monopoly power, i.e., the power to profitably charge prices above the competitive level.
11 Not only are these stores, at most, available only a given OEM’s smartphones, but they are
12 disadvantaged by the premium placement that they are contractually required to provide to the Google
13 Play Store (and other Google apps).
14

15 93. In addition, as to the Galaxy Store, [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]

22 94. Discovery also shows that Google [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26

27 ⁷³ *Id.*

28 ⁷⁴ <https://www.pcgamesn.com/steam-revenue-cut-tim-sweeney> (last accessed July 21, 2021).

1 [REDACTED]
2 [REDACTED]
3 95. Thus, even though Samsung and other existing OEM stores have not constrained its
4 monopoly power, Google still pushes to buy them out of the market.

5
6 96. Notably, on personal computers, application distribution is competitive. Consumers
7 download applications from a variety of sources, including the application developer's website or
8 stores on websites such as Amazon, Apple, Microsoft, Google, or Steam. As a result, commissions are
9 often lower, and there is meaningful price and service competition among major distribution channels.
10 For example, Steam charges lower commission rates for higher revenue apps,⁷⁶ Microsoft charges
11 lower commission rates for non-game apps (15%) and (as of August 1, 2021) game apps (12%),⁷⁷ and
12 Epic charges 12% for transactions on the Epic Games Store.⁷⁸

13 **There are high barriers to entry in the Android OS app distribution market.**

14 ⁷⁵ Specifically, Google proposed as part of this deal (codenamed [REDACTED] and later
15 [REDACTED] that, while [REDACTED]

16 ⁷⁶ Since October 1, 2018, Steam has charged a 30% commission for each game's first \$10M in
17 revenue, a 25% commission for each game's next \$40M in revenue, and a 20% commission for each
18 game's remaining revenue. Steam Team, *New Revenue Share Tiers and other updates to the Steam*
19 *Distribution Agreement* (published November 30, 2018, steamcommunity.com/groups/steamworks/announcements/detail/1697191267930157838) ("Starting
20 from October 1, 2018, . . . when a game makes over \$10 million on Steam, the revenue share for that
21 application will adjust to 75%/25% on earnings beyond \$10M. At \$50 million, the revenue share will
adjust to 80%/20% on earnings beyond \$50M. Our hope is this change will reward the positive network
effects generated by developers of big games, further aligning their interests with Steam and the
community.")

22 ⁷⁷ On its PC store, Microsoft currently charges a 15% commission for non-game Windows 10 apps
23 and a 30% commission for Windows 10 game apps. However, Microsoft announced in April 2021
24 that it would reduce its commission for Windows 10 game apps to 12% beginning on August 1, 2021.
25 Tom Warren, *Microsoft Shakes Up PC Gaming by Reducing Windows Store Cut to Just 12 Percent*
26 (published April 29, 2021, [https://www.theverge.com/2021/4/29/22409285/microsoft-store-cut-](https://www.theverge.com/2021/4/29/22409285/microsoft-store-cut-windows-pc-games-12-percent)
27 [windows-pc-games-12-percent](https://www.theverge.com/2021/4/29/22409285/microsoft-store-cut-windows-pc-games-12-percent)) ("The software giant is reducing its cut from 30 percent to just 12
28 percent from August 1st.") Furthermore, in June 2021, Microsoft announced that developers of non-
game apps will be allowed to keep 100% of their Microsoft Store sales if they use their own (or a third
party's) payment system. See Sean Hollister, *Microsoft reveals the new Microsoft Store for Windows*
11, and it has Android apps, too, The Verge (June 24, 2021),
<https://www.theverge.com/2021/6/24/22546635/microsoft-windows-11-new-app-store>.

⁷⁸ FAC, Epic Games, <https://www.epicgames.com/store/en-US/about> (last accessed Jul 20,
2021).

1 97. There are significant barriers to entry and expansion in the market for Android OS app
2 distribution. A potential market entrant must: (1) build and maintain the app store client, (2) program
3 and maintain the requisite software and algorithms going forward, (3) advertise the client and the steps
4 needed to install it, (4) keep the marketplace safe, and (5) process payments at a high volume. The cost
5 of all this, according to Sony, is “prohibitive”—particularly given the established position of the
6 Google Play. Indeed, Amazon’s app store has barely made a dent in Google’s market share, despite
7 Amazon’s dedication of hundreds of employees and tens of millions of dollars spent annually over
8 several years to develop and commercialize the store.

9 98. The European Commission also has concluded that there are high barriers to entering
10 the market for Android OS app distribution.⁷⁹ The same factors it cited as high barriers to entry in “the
11 worldwide market (excluding China) for licensable smart operating system,” where Google’s Android
12 OS was estimated in 2018 to have “a market share of more than 95%,” apply as well with respect to
13 entry into the U.S. market for Android OS app distribution:

14 There are high barriers to entry in part due to network effects: the more
15 users use a smart mobile operating system, the more developers write
16 apps for that system – which in turn attracts more users. Furthermore,
significant resources are required to develop a successful licensable
smart mobile operating system.⁸⁰

17 99. Other significant barriers to entry and expansion have been erected by Google, which
18 has excluded competition through its restrictive contracts with OEMs and developers, and (addressed
19 below) through its security warnings and threats to end users.
20
21
22

23
24 ⁷⁹ See “Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android
25 mobile devices to strengthen dominance of Google’s search engine,” available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm. (*Id.* (“Google is dominant in the worldwide market
26 (excluding China) for app stores for the Android mobile operating system. Google’s app store, the Play
Store, accounts for more than 90% of apps downloaded on Android devices. This market is also
27 characterized by high barriers to entry. . . .”).) Further, while Plaintiffs’ complaint is not based on
Google search dominance, nonetheless, Google search is germane because Google Play is bundled
with Google search products, which has aided in achieving Google Play’s monopoly status in the U.S.

28 ⁸⁰ *Id.*

100. Alternatively, Google is an attempted monopolist in the U.S. market for Android OS app distribution, and in the market for app in-app distribution services and payment processing for U.S. Android app developers.

E. Apple Does Not Constrain Google's Monopoly Power.

101. Google's monopoly power is not restrained by Apple's App Store because it does not directly compete with Google Play. Apple's iOS apps do not work on Android operated devices and Android's apps do not work on (and cannot be downloaded onto) Apple devices. Moreover, Apple has not developed or licensed an app store for Android, and it does not license its operating system. Thus, Android users cannot purchase apps from Apple's App Store without switching to an Apple iOS iPhone or iPad.

102. The switching costs between Android and iOS are also high.⁸¹ These costs include (1) the relatively high prices of smartphones and tablets; (2) the learning curve for each operating system; and (3) the fact that apps and in-app purchases are not transferrable between operating systems. And because so few people own both Android and iOS devices, there is almost virtually no demand shifting between the Play Store and the Apple App Store.

103. The European Commission agrees that the Apple App Store does not constrain Google's monopoly power:

As a licensable operating system, Android is different from operating systems exclusively used by vertically integrated developers (like Apple iOS or Blackberry). Those are not part of the same market because they are not available for license by third party device manufacturers.

Nevertheless, the Commission investigated to what extent competition for end users (downstream), in particular between Apple and Android devices, could indirectly constrain Google's market power for the licensing of Android to device manufacturers (upstream). The

⁸¹ See House Report at 102 ("Although both Google Android and Apple iOS both have dominant positions in the mobile OS market, high switching costs and a lack of on-device competition mean that neither firm's market power is disciplined by the presence of the other."); *see also id.*, at 102-103 ("There are significant barriers to switching between the dominant mobile operating systems. As a general matter, consumers rarely switch mobile operating systems. SellCell's 2019 survey found that more than 90% of users with iPhones tend to stick with Apple when they replace their current device.") (citations omitted).

Commission found that this competition does not sufficiently constrain Google upstream for a number of reasons, including:

end user purchasing decisions are influenced by a variety of factors (such as hardware features or device brand), which are independent from the mobile operating system;

Apple devices are typically priced higher than Android devices and may therefore not be accessible to a large part of the Android device user base;

Android device users face switching costs when switching to Apple devices, such as losing their apps, data and contacts, and having to learn how to use a new operating system; and

even if end users were to switch from Android to Apple devices, this would have limited impact on Google's core business. That's because Google Search is set as the default search engine on Apple devices and Apple users are therefore likely to continue using Google Search for their queries.⁸²

104. Regarding app stores specifically, the European Commission found that:

Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google's app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices. This market is also characterised by high barriers to entry. *For similar reasons to those already listed above, Google's app store dominance is not constrained by Apple's App Store, which is only available on iOS devices.*⁸³

F. Google Engages in Unlawful Behavior in Order to Restrain Trade and to Maintain and Grow Its Monopoly.

105. Having obtained monopoly power in the market for Android OS apps and in-app payment processing, Google has constructed a bulwark of contractual restrictions and technical barriers to protect that monopoly status, ensuring that almost all (approximately 90% of) apps and in-app digital content are purchased through Google Play Store and Google Play Billing. These carefully

⁸² See "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm. (last accessed Aug. 15, 2020).

⁸³ *Id.* (emphasis added).

1 constructed restrictions function as a moat around Google Play Store to protect it from market
2 competition.

3 **1. Google enters anticompetitive contracts with OEMs.**

4 106. Google's Play Store dominance begins with users' eyeballs and default habits. As
5 addressed above, Google uses its MADA agreements to secure default premium placement for Google
6 Play Store on the home screen of Android OS devices.⁸⁴

7 107. Making the Google Play Store the default app store on Android devices gives a
8 significant advantage to Google because users rarely change their default settings. In 2017, in a
9 presentation on Amazon's app store, Google described the power of the Play Store's default placement
10 on the home screen: "If we were honest we would admit most users and developers aren't consciously
11 'choosing' they are going with the default. If they really had to choose how would they do that and
12 would they choose us?"

13 108. And because Google's MADA agreements also require that OEMs (1) preinstall a suite
14 of Google proprietary apps; (2) prevent consumers from deleting or removing many of these Google
15 apps; and (3) provide such apps preferential placement on the device's home screen, Google effectively
16 crowds out competing apps and app stores. Indeed, in 2009, Google required preinstallation of as many
17 as a dozen Google apps. By 2013, Google doubled the number. Now, Google requires OEMs to
18 preinstall up to thirty Google apps in order to get a license for even one Google app.

19 109. Moreover, OEMs must agree under the MADA and related Anti-Forking Agreements
20 that their devices will pass the Android Compatibility Test, which Google administers and controls in
21 its sole discretion.⁸⁵ This further reinforces Google's restraint on the production of devices using
22

23 ⁸⁴ The home screen appears by default when the device is active (i.e., not in "sleep mode") but no
24 app is open. "By default, your main Home screen shows the date, weather, and a few apps," as well as
25 a large Google Search "widget." See Change what's on your Home screen on Android, GOOGLE,
26 <https://support.google.com/android/answer/9440648?hl=en>.

27 ⁸⁵ See **Ex. A** hereto (MADA between Google and Samsung), ¶¶ 2.1 ("Devices may only be
28 distributed if all Google Applications (excluding any Optional Google Applications) authorized for
distribution in the applicable Territory are pre-installed on the device, unless otherwise approved by
Google in writing."), 2.7 ("The license to distribute Google Applications in Section 2.1 is contingent
upon the Device becoming an Android Compatible Device."), 3.4 (providing that "Google Phone-top
Search must be set as *the default search provider for all search access points on the Device* providing

1 Android forks as their operating systems,⁸⁶ which in turn restricts avenues for distribution of competing
2 app stores.

3 110. In addition to its MADA agreements, in 2019, [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]

12 111. Google entered these agreements after recognizing the competitive threat to its
13 monopoly that Epic and other potential Android app distributors posed, designing the agreements to
14 lock in Google's monopoly power in [REDACTED] Google itself recognized that
15 the new [REDACTED]⁸⁷

16 _____
17 for the prime placement of Google Applications" (emphasis added) and also providing for the prime
18 placement of "Google Applications"), 3.8(c) ("Company shall configure Network Location Provider
19 to be the default network-based location provider on all Android Compatible Devices."); **Ex. B** hereto
(MADA between Google and HTC), ¶¶ 2.1 (same as ¶ 2.1 in Google-Samsung agreement), 2.7 (same
as ¶ 2.7 in Google-Samsung agreement), 3.4 (same as ¶ 3.4 in Google-Samsung agreement), 3.8(c)
(same as ¶ 3.8(c) in Google-Samsung agreement).

20 ⁸⁶ For example, the House Report notes that "[i]n 2012, Chinese tech giant Alibaba developed a
21 mobile OS called Aliyun for the Chinese market. However, Acer, Alibaba's hardware partner, abruptly
22 canceled its collaboration with Alibaba before the launch of Acer's device running the OS." Reports
indicate that Acer's abrupt cancellation was due to threats from Google. House Report at 106 and
n.568.

23 ⁸⁷ [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

112. [REDACTED]

113. Indeed, Epic had reached an agreement with OnePlus (one of the brands owned by BBK) to allow users of OnePlus devices to seamlessly install Fortnite—merely by touching an Epic Games app on their devices and without encountering any obstacles typically imposed by the Android OS on sideloaded apps. Although the original agreement between Epic and OnePlus contemplated making this installation method available worldwide, Google demanded that OnePlus not implement its agreement with Epic except for devices sold in India. As OnePlus informed Epic, Google was “particularly concerned that the Epic Games app would have ability to potentially install and update multiple games with a silent install bypassing the Google Play Store.” And any waiver of Google’s restriction “would be rejected due to the Epic Games app serving as a potential portfolio of games and game updates.” In the end, because of Google’s intervention, only OnePlus users in India can install Epic apps seamlessly without using the Google Play Store. No other users can do so.

1 114. Another OEM that [REDACTED] which also
2 told Epic that it had a contract with Google “to block side downloading off Google Play Store this
3 year” but that it could “surely” make Epic apps available to consumers if the Google Play Store were
4 used. [REDACTED]

5 115. Google itself recognized that the [REDACTED] had [REDACTED]
6 [REDACTED] its apps, substantially foreclosing an alternative method of app distribution on
7 Android: installation by OEMs. Nor is there any question about the anti-competitive thinking driving
8 these restrictions on installation method: as one Google employee wrote in 2020, their purpose was
9 [REDACTED]

10 **2. Google designs and implements technical barriers.**

11 116. Google does not stop with contractual restrictions, or with its bar on distributing
12 competing app stores through Google Play. It also designed and implemented a variety of technical
13 barriers (or as Google refers to them internally, “pain points”) to keep competing app stores off
14 Android devices. While some technical barriers may, in some instances, have legitimate functions
15 (e.g., protecting user security), Google designs the barriers to ward off competition—an effect that
16 Google is aware of and intentionally seeks to maximize. Indeed, in a recent presentation regarding
17 whether to make sideloading easier on Android 12 (the forthcoming version of Android), a key
18 question was how the change would affect competition. The presentation asks: “Would this change
19 directly compel developers to invest in assets off-Play (e.g., 3P app store, etc.).”

20 117. A device user seeking to install a third-party app store faces significant technical
21 hurdles. For example, Amazon operates an app store for Android OS apps, but there is no simple or
22 intuitive way for the typical owner of a device using Android OS to download apps from Amazon’s
23 app store. Because of Google’s anticompetitive practices, an Android user seeking to purchase an app
24 from the Amazon app store must first sideload⁸⁸ the store—which requires locating the store online,⁸⁹

25
26 ⁸⁸ “Sideloading is the installation of an application on a mobile device without using the device’s
27 official application-distribution method.” (<https://searchmobilecomputing.techtarget.com/definition/sideloading> (last accessed Aug. 15, 2020)).

28 ⁸⁹ See House Report at 220 (“Rival app stores that are not pre-installed on the device, such as the Amazon Appstore, must be sideloaded.”).

1 figuring out and completing the sideloading process, and changing a security setting on the Android
2 device (a practice that Google strongly discourages).⁹⁰

3 118. Indeed, as discussed below, documents produced so far in this case confirm that Google
4 employees openly discuss how to leverage Google’s technological barriers as pretext to keep entrants
5 like Amazon and Epic from gaining scale.

6 **How Google’s Barriers Fit Together.**

7 119. Despite touting that its system allows consumers to directly download applications,
8 Google programmed Android OS so that, as its default setting, it would block users from loading
9 alternative app stores—requiring consumers to navigate through multiple misleading warnings that
10 label even trusted app stores as “unknown sources.” Furthermore, Google programmed the Android
11 OS to disadvantage competing app stores, including by denying them “the permissions necessary to
12 be seamless updated in the background” and by [REDACTED]

13 [REDACTED] Google has even disabled competing app
14 stores after users have downloaded them. These barriers create “friction” for users who otherwise
15 might use alternative app stores—friction that Google, as its internal documents reveal, knows and
16 intends will effectively block competitive stores (even Amazon’s) from reaching users.

17 120. As its primary technical barrier, Google restricts users from downloading competitive
18 app stores and apps by using: (1) a default setting on the vast majority of Android OS devices that
19 blocks such downloading, and (2) a permission process to bypass those defaults that display misleading
20 warnings (about the competing store or app being an “unknown source”) and forces users to agree that
21 they are responsible for any resulting damage to their devices.

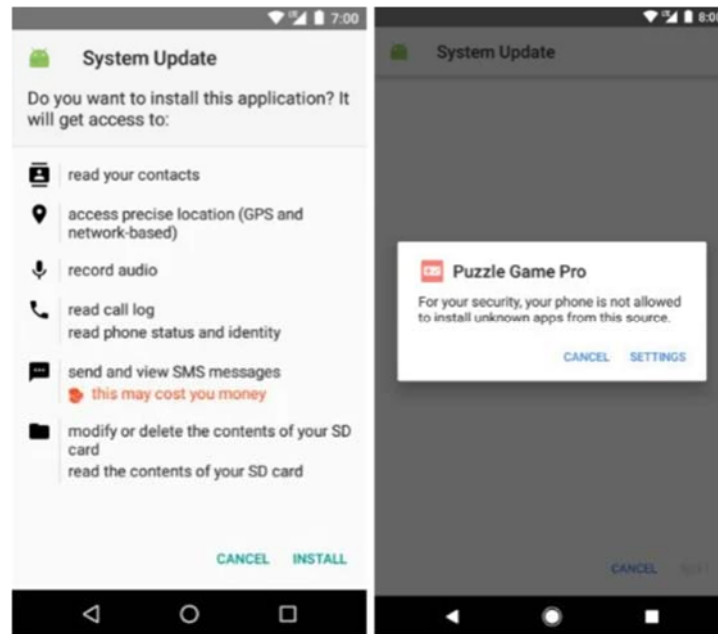
22 **Default Prevents Sideloading of Competitive App Stores.**

23 121. As a foundational barrier, Google created a default setting blocking sideloading on
24 Android OS phones. The vast majority of Android OS phones are set to this default, blocking
25 consumers from downloading alternative stores or apps via sideloading. An internal Google document
26

27 ⁹⁰ See *id.* (“Although sideloading is technically an option for rival app stores and app developers,
28 market participants explained that Google goes out of its way to make side-loading difficult.”)

reflects that, as of 2018, only ~32% of devices worldwide had “unknown sources” enabled (meaning that users had changed the default setting such that these devices can install apps from “unknown sources,” as described in more detail below), a number that is likely skewed in part by the higher rates of third-party store usage outside of the United States; a separate document, from when Fortnite decided to launch via sideloading, estimates that only 15% of users in the United States had “unknown sources” enabled. Unsurprisingly, this means that very few devices in the U.S. have a third-party store installed: an internal Google document from 2021 states that, in the United States, *only* [REDACTED] of devices have at least one user side-loaded store.⁹¹

122. For example, in some instances, Google presents a user trying to sideload an app with only the option “Cancel” or go to the device “Settings” menu—with no indication that installation is in fact possible through the “Settings” menu:



123. Thus, in addition to all the steps a user must complete to acquire an app outside the Play Store, a user is by default blocked with no indication from Google as to how to avoid that block.

Friction from multistep permission process and misleading warnings.

⁹¹ Similarly, a separate Google document estimates that, between June and September 2016, [REDACTED] of Android app downloads were from “off-Play” sources, including preloaded stores like Samsung’s.

124. And even once a consumer decides to try to download a competing store, they must navigate a multi-step process with ominous and misleading “unknown user” warnings.

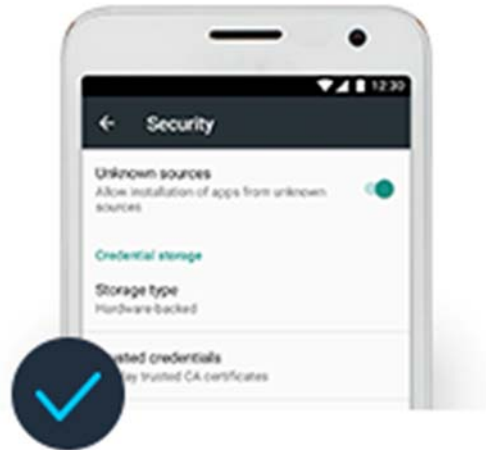
125. The following is an example of the steps that an Android user must take to download an app through an app store other than the Google Play Store. This example, using Amazon’s app store, assumes that the user knows about the alternative store and is sufficiently patient, and tech savvy, to try. First, the user must search Amazon’s website to find and obtain a link to Amazon’s app store. Then the consumer must do the following:



Step 1

Download Amazon Appstore

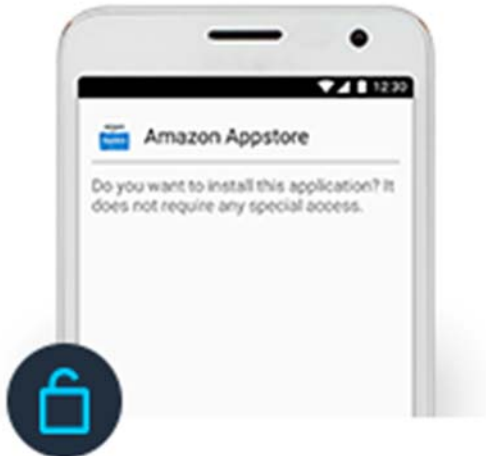
1. Use link sent to you in email to navigate to the Amazon Appstore download page
2. Tap on “Get Amazon Appstore” button
3. Follow instructions



Step 2

Enable Unknown Sources

1. In your phone Settings page, tap on “Security” or “Applications” (varies with device)
2. Enable “Unknown Sources” permission
3. Confirm with “OK”



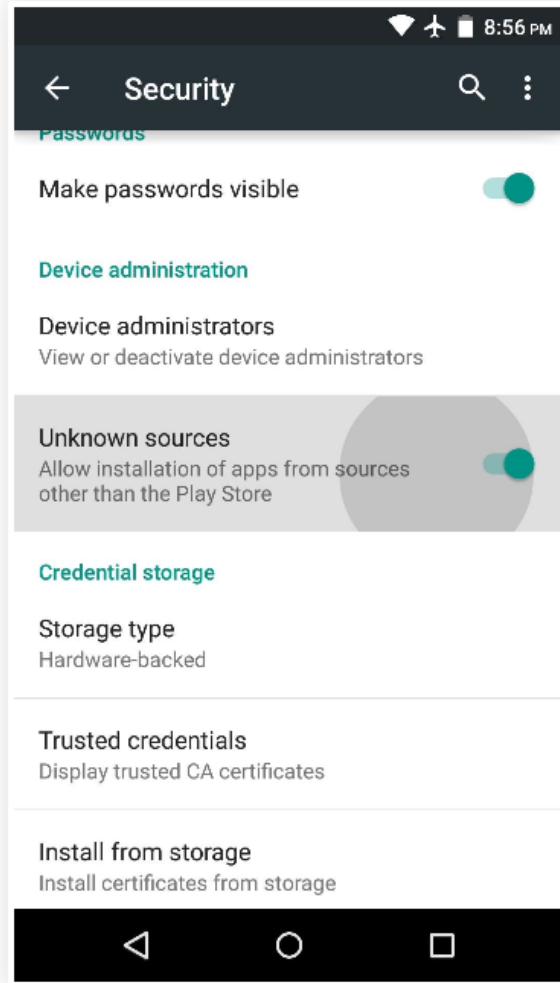
Step 3

Install and Launch Amazon Appstore

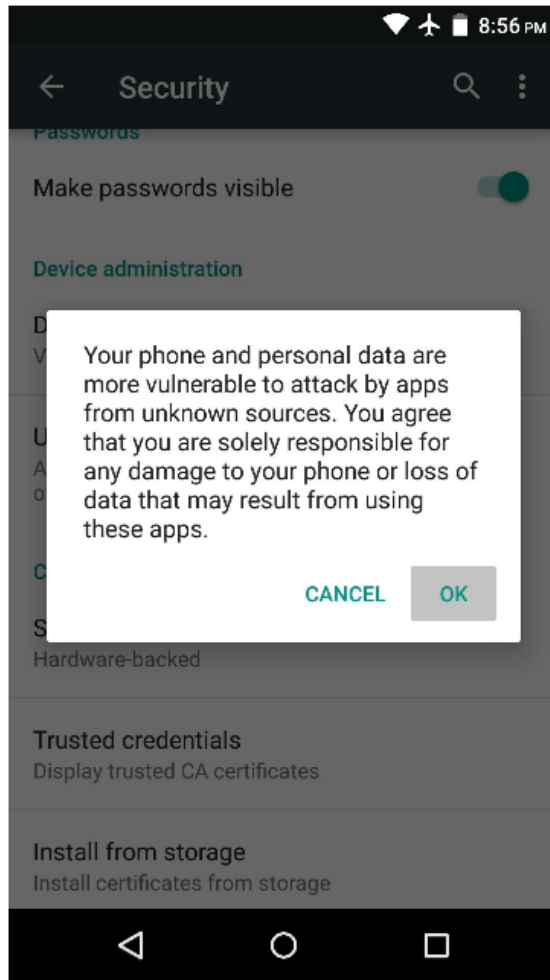
1. In your device's “Download” folder, find and tap on the “Amazon_app.apk” file
2. Tap “Install” on the Android Installer screen
3. Launch the Amazon Appstore⁹²

⁹² https://www.amazon.com/gp/feature.html/ref=sxts_snpl_1_1_b122686d-95c7-451e-a41b-8f08ca46cdcb?pf_rd_p=b122686d-95c7-451e-a41b-8f08ca46cdcb&docId=1000626391&pf_rd_r=ZSYBJ5ZEY4SCVPB0YXB5&pd_rd_wg=Ou2nJ&pd_rd_w=l6Ci1&qid=1597568508&pd_rd_r=1f985501-51cf-4e11-8fdc-4d076ac56dbb (last accessed Aug. 15, 2020).

126. Because of Google’s refusal to allow competitors to distribute app stores via Google Play Store, and because of Android’s security features (controlled by Google), the user had to be willing to turn on the “Unknown Sources” permission referenced in Amazon’s Step 2 above. In Android versions released before its Oreo variant, the user would first find a screen looking like this:



127. A user opting to enable “Unknown source” would be greeted with this warning about making “[y]our phone and personal data ... more vulnerable to attack”:



128. Google's exact permission structure has changed over time. For example, on October 26, 2018, Google enabled some users to authorize download from only one source at a time.⁹³ But some Android OS devices in operation today still likely run pre-Oreo Android versions. Even with the change brought with Oreo, Google knows and intends that (1) most device users will not know how to access stores and apps outside of Google Play and (2), among those users who do, many will be frightened away by having to change a permission switch, given Google's continued warnings in various guises.

⁹³ See <https://www.android.com/versions/oreo-8-0/> ("Hostile downloader apps can't operate without permission; users now permit the installation of APKs per-source.") (last accessed Aug. 15, 2020).) Oreo was not released to the public until August 21, 2017. (<https://android-developers.googleblog.com/2017/08/introducing-android-8-oreo.html> (last accessed Dec. 10, 2018).) As of October 26, 2018, well over a year later, Oreo's worldwide install base was at a mere 21.5%, not counting China. (<https://developer.android.com/about/dashboards/> (last accessed Dec. 10, 2018).)

1 129. For example, users who wish to sideload might see this warning (after first receiving a
2 pre-warning): “Your phone and personal data are more vulnerable to attack by unknown apps. By
3 installing apps from this source, you agree that you are responsible for any damage to your phone or
4 loss of data that may result from their use.”⁹⁴ Google issues this message no matter how reputable the
5 store operator (or other developer), belying the notion that Google’s tactics protect anything other than
6 its monopoly.⁹⁵

7 130. As a factual matter, Google’s warnings grossly exaggerate the risk of sideloading.
8 A 2015 presentation to OEMs stated that “potentially harmful applications” constituted a mere fraction
9 of a percentage point of all app installs and that, given the low security risks, “some of the third-party
10 security services that are required on other platforms (such as AV [anti-virus software] and anti-
11 malware) are not necessary on Android.” Rather, [REDACTED]
12 [REDACTED] (And, of course, even
13 Google Play has proven vulnerable to malware that could harm users’ devices.⁹⁶)

14 131. Nor does data support the claim that third-party stores, particularly those operated by
15 large developers or OEMs, are a significant source of malware. For example, an independent study of
16 Android app stores published in 2017 ranked Aptoide as the safest among the Android app stores
17 analyzed and safer than the Google Play Store itself. Consistent with this, in a 2020 presentation
18 produced in discovery, Google acknowledges that “[a]pp stores generally have relatively low malware
19 install rates,” including major OEM stores like Oppo Market (0.02%), Vivo Store (0.05%), Xiaomi
20 Getapps (0.13%) and third-party stores like Amazon (0.7%), Epic Store (0.0%), F-Droid (0.05%), and
21 Care Bazaar (0.15%).
22
23

24 ⁹⁴ “Android Q currently disables ‘Install unknown apps’ permission after every use,” available at
25 <https://9to5google.com/2019/04/04/android-q-install-unknown-apps/> (last accessed Aug. 17, 2020).

26 ⁹⁵ And even if users overcome the hurdles imposed by Google and download an app from outside
27 the Play Store, the app may be subject to removal from the user’s mobile device by Google’s security
28 systems, such as Google Play Secure, and experience problems updating the apps.

⁹⁶ See, e.g., “Android security: Malicious apps sneak back into Google Play after tweaks,” May 9,
2018, available at [https://www.zdnet.com/article/android-security-malicious-apps-sneak-back-into-
google-play-after-tweaks/](https://www.zdnet.com/article/android-security-malicious-apps-sneak-back-into-google-play-after-tweaks/) (last accessed Aug. 15, 2020).

1 132. Google issues its warnings indiscriminately and with the knowledge that it hampers
2 competitors. Like Google Play, the Amazon Appstore is monitored and curated.⁹⁷ Google is well aware
3 of the Amazon App Store and actively monitors it. Yet Google stills labels it an “unknown app,” giving
4 users the false impression that even apps Google certainly must have analyzed and determined to be
5 safe nevertheless present an appreciable risk of “damage” to the user’s device, including data loss or
6 the exposure of the user’s personal information.

7 133. Google could easily “whitelist” app stores, i.e., disable its ominous warnings for those
8 third-party stores or apps that effectively screen for malware themselves or do not present security
9 risks. But Google steadfastly refuses, recognizing that these concessions would make it easier for rivals
10 to gain scale. [REDACTED]

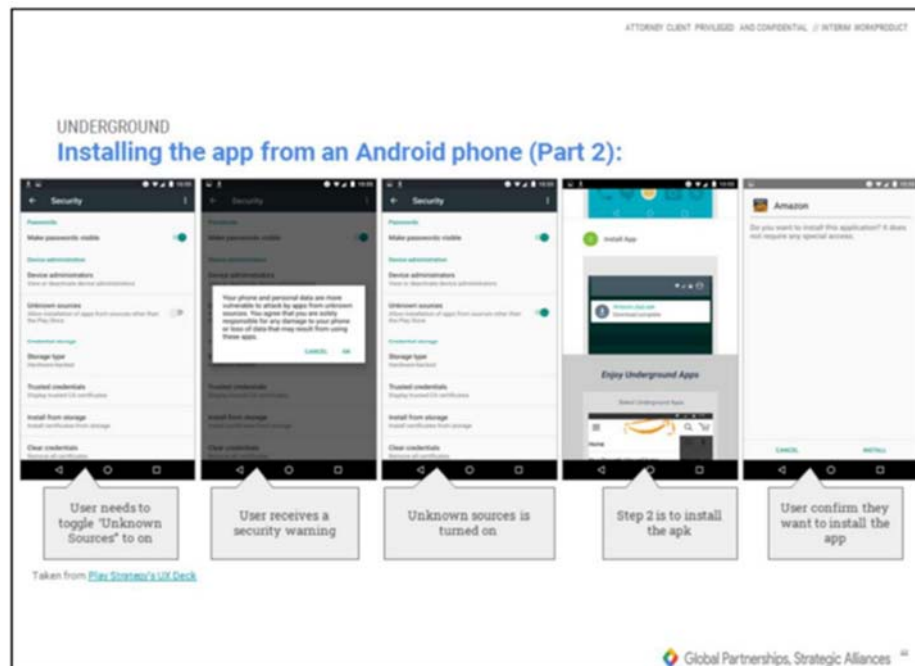
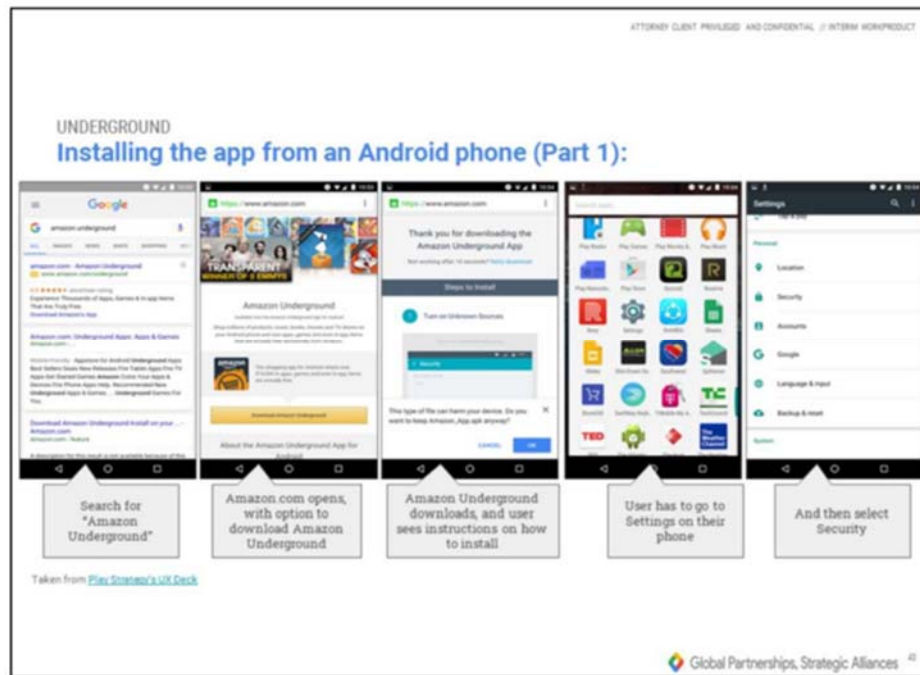
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]

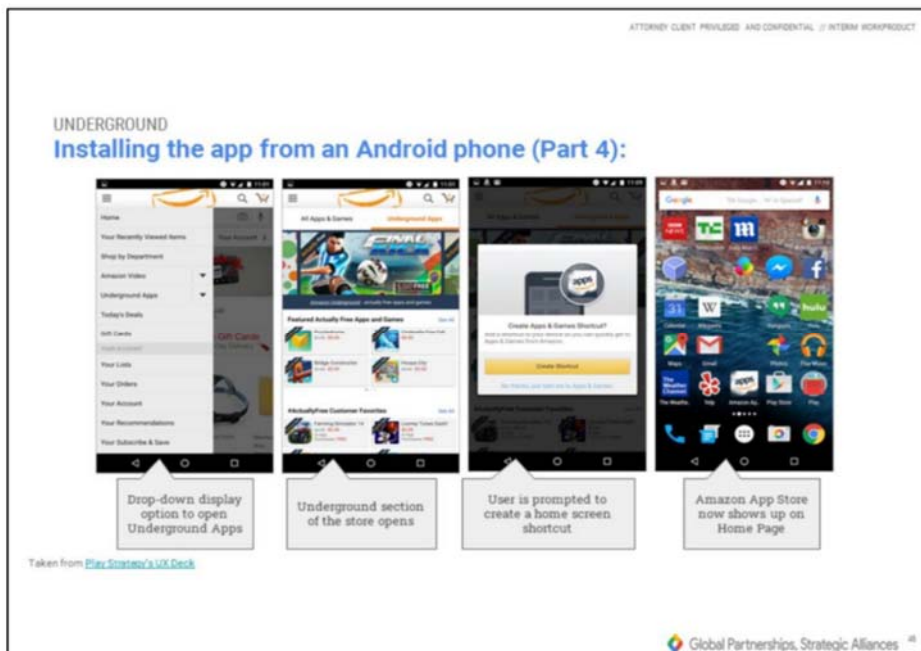
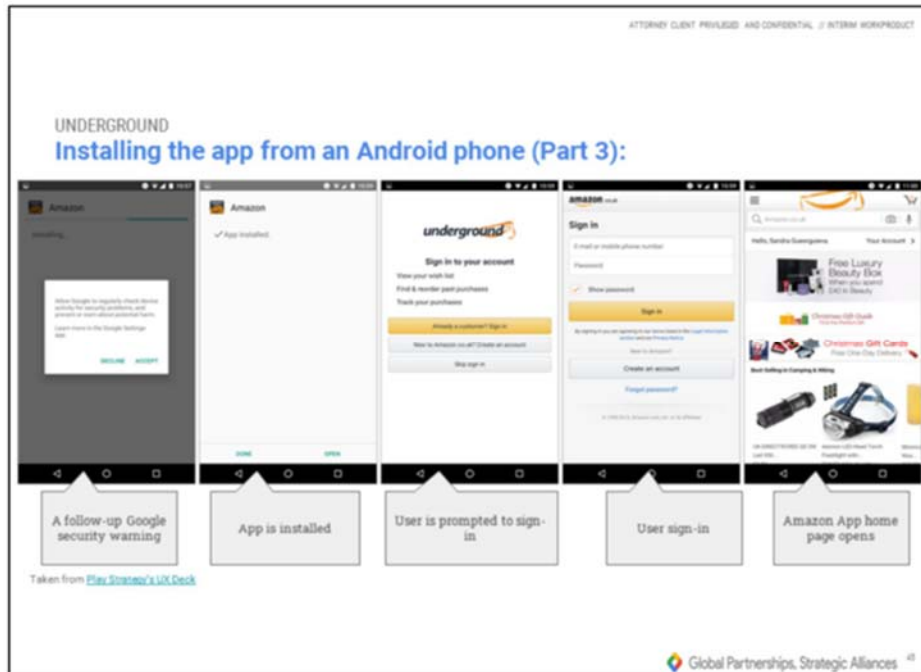
15 134. [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]

21 135. This strategy is consistent with what one 2019 Google document characterizes
22 internally as “an arms race to prevent sideloading.” Indeed, Google implements these hurdles or “speed
23 bumps” with platform dominance in mind and appears to admire them internally; for example, one
24 2017 strategic assessment of Amazon includes the following slides (under the caption “sideloading

25
26
27 ⁹⁷ See, e.g., “Amazon Appstore Content Policy,” available at <https://developer.amazon.com/docs/policy-center/understanding-content-policy.html> (last accessed Aug. 15, 2020).

Amazon's App Store") modelling the steps necessary to install the "Amazon Underground" store on certain phones in all their baroque detail:





136. Further, Google touts its security measures, including initiatives to safety-check and even quarantine or delete *all* apps on Android OS devices, wherever they are obtained. For example, in its February 2016 white paper titled, “How we keep harmful apps out of Google Play and keep your Android device safe,”⁹⁸ Google states:

⁹⁸ An archived version of this paper is available at: <https://docplayer.net/15116445-How-we-keep-harmful-apps-out-of-google-play-and-keep-your-android-device-safe.html> (last accessed July 21, 2021).

1 Even though we do a lot of work to make Google Play apps safe before
2 they reach you, Google works hard to protect you—no matter where
3 your app comes from. We sandbox each application to constrain bad
4 behavior and if an app wants new permissions, we ask you to confirm at
5 runtime.

6 In addition to multiple layers of security built into the platform, Android
7 also includes a feature called Verify Apps. Verify Apps continually
8 scans for potentially harmful apps. If an app is discovered later to be
9 potentially harmful, Verify Apps will disable the app and request for you
10 to remove it.

11 Verify Apps also checks apps you install from outside of Google Play.
12 If we see an app that looks malicious, we warn you before the
13 installation proceeds. Verify Apps is available on every Android device
14 (2.3+) that has Google Play installed.⁹⁹

15 137. As for its security regime, Google Play Protect, Google assures:

16 Google Play Protect helps you keep your device safe and secure.

- 17 • It runs a safety check on apps from the Google Play Store before you
18 download them.
- 19 • It checks your device for potentially harmful apps from other sources. These
20 harmful apps are sometimes called malware.
- 21 • It warns you about any detected potentially harmful apps found, and
22 removes known harmful apps from your device.
- 23 • It warns you about detected apps that violate our Unwanted Software Policy
24 by hiding or misrepresenting important information
- 25 • It sends you privacy alerts about apps that can get user permissions to access
26 your personal information, violating our Developer Policy.¹⁰⁰

27 138. If these assurances are to be believed, then Google already monitors the security of all
28 apps that would be obtained from any competing app store. If Android security is as robust as Google
claims, its warnings against sideloading falsely overstate any potential “harm”—particularly as to

⁹⁹ <https://docplayer.net/15116445-How-we-keep-harmful-apps-out-of-google-play-and-keep-your-android-device-safe.html> at 4 (last accessed Aug. 15, 2020).

¹⁰⁰ https://support.google.com/android/answer/2812853?p=playprotect_download&hl=en&visit_id=636801711322579028-4051903200&rd=1 (last accessed Aug. 15, 2020).

1 widely used apps and app stores, from reputed developers, which Google has analyzed and found to
2 be harmless.

3 ***

4 139. There is no good reason that a company as technologically sophisticated as Google
5 could not whitelist or otherwise continue to permit unimpeded access to competitors' app stores on
6 Android OS devices, including those run by well-known operators such as Amazon. As noted above,
7 Google itself acknowledges that major third-party and OEM app stores, including Amazon's and
8 Epic's, "generally have relatively low malware install rates" of less than 1%.

9 **3. Google blocks sideloaded applications and app stores from auto-updating and**
10 **advertising through Google Ads.**

11 140. Even if a user overcomes Google's obstacles to sideloading a competing app store or
12 app, the user faces continuous additional difficulties in keeping the sideloaded app or app store up to
13 date. This is because Google prevents sideloaded apps and app stores from updating in the background.
14 Instead, users who sideload apps or app stores must manually approve every update via a multistep
15 process. Amazon's website describes that process: "1. Open the app store you used to install the app
16 on your device. 2. Search for the app and open the app's detail page. 3. If an update is available, an
17 Update option displays."¹⁰¹ This multi-step process for updates further discourages consumers from
18 using alternatives to the Play Store.¹⁰²

19 141. Similarly, Google blocks alternative (i.e., competing) app distribution channels by
20 preventing app developers from advertising these channels through Google's marketing properties.
21 This requirement unreasonably raises the cost of customer acquisition for competing app distribution

22
23 ¹⁰¹ "Confirm App is Updated to the Latest Version,"
<https://music.amazon.com/help?nodeId=G202196570> (last accessed July 20, 2021).

24 ¹⁰² Google last month announced plans to reduce some of its impediments to third-party app stores—
25 after some 10 years—in the forthcoming version of the Android OS, Android 12. Sameer Samat,
26 Listening to Developer Feedback to Improve Google Play, ANDROID DEVELOPERS BLOG
(September 28, 2020), <https://androiddevelopers.googleblog.com/2020/09/listening-to-developer-feedback-to.html>. Specifically, initial Google documentation suggests that it will enable automatic
27 updating of sideloaded app stores under certain conditions. See Mishaal Rahman, Android 12 will
28 finally let alternative app stores update apps without bothering the user, XDA DEVELOPERS (May
19, 2021), <https://www.xdadevelopers.com/android-12-alternative-app-stores-update-apps-background/>.

1 channels, as they cannot reach consumers through widely used forms of advertising that are uniquely
2 effective in reaching users who are immediately prepared to acquire an app but instead must find
3 alternative means of advertising to reach users.

4 142. Google's App Campaigns program allows developers to promote apps through ad
5 placements on key online advertising channels, including Google Search, YouTube, Discover on
6 Google Search, and the Google Display Network. These placements are optimized for the advertising
7 of mobile apps and have proven successful. According to Google, one out of every four users discovers
8 an app through a search engine.¹⁰³ And because Google Search is the overwhelmingly dominant search
9 engine in the United States (and most of the world), it is a vital channel for app developers to reach
10 customers. Ads on Google's YouTube are likewise a key means for developers to reach consumers.

11 143. Since late 2017, Google has forced all marketers to relinquish their control over app ad
12 targeting to fully automated "black box" machine learning tools, which have been criticized for
13 penalizing smaller budget advertisers. But within the Android ecosystem, the crucial App Campaigns
14 program is limited to app developers who list their app in the Google Play Store. Android app
15 developers must list their apps in the Google Play Store if they want to reach consumers through the
16 vital channel of Google advertising.

17 144. Denying competing apps and app stores the ability to auto update or advertise on
18 Google properties erects significant additional barriers to entry. The net effect of this conduct is to
19 harm consumers, including by depriving them of choice in how to download their desired apps and
20 app stores.

21 **4. Google has, at times, shut down existing consumers' access to competitive stores.**

22 145. If all else fails—if a consumer learns of another app store, figures out how to acquire
23 the client, educates herself on how to install it, and ignores Google's manipulative security warnings,
24 Google may attempt to shut down the consumer's access.

25
26
27

¹⁰³ <https://www.thinkwithgoogle.com/marketing-strategies/app-and-mobile/mobile-app-marketing-insights/> (last accessed July 20, 2021).

146. Not satisfied with denying Aptoide access to the Play Store, Google forced app store operator Aptoide to go to court to seek an antitrust injunction for uninstalling it from Android devices during its Google Play Protect sweeps. And Aptoide won. According to Aptoide's press release:

EU National Court rules against Google in Anti-Trust process

Lisbon, October 19th, 2018

The Portuguese Courts issued today a decision against Google in relation to the injunction filed by Aptoide. It is applicable on 82 countries including UK, Germany, USA, India, among others. Google will have to stop Google Play Protect from removing the competitor Aptoide's app store from users' phone without users' knowledge which has caused losses of over 2.2 million users in the last 60 days.

The acceptance of the injunction is totally aligned with Aptoide's claim for Google to stop hiding the app store in the Android devices and showing warning messages to the users. Aptoide is now working alongside its legal team to next week fill in courts the main action, demanding from Google indemnity for all the damages caused.

This action is part of a complaint against foul play by Google, directed to Android's antivirus software, Google Play Protect. Google's anti-malware system was wrongly identifying Aptoide as a potentially malicious app, hiding and uninstalling it from Android smartphones without user consent.

Aptoide, with over 250 million users, 6 billion downloads and one of the top stores globally, also presented last July, a formal complaint to the European Union's anti-trust departments against Google.

Paulo Trezentos, Aptoide's CEO, says that "For us, this is a decisive victory. Google has been a fierce competitor, abusing his dominant position in Android to eliminate App Store competitors. Innovation is the reason for our 200 million users base. This court's decision is a signal for startups worldwide: if you have the reason on your side don't fear to challenge Google."

According to Carlos Nestal, head of the legal team that worked in the case:

"This case, to our knowledge, is the first of an EU national Court that enforces a clear separation of Android layer and the Services layer. Court is clearly stating that Google's control of the Operating System cannot be used as a competitive advantage in the Services market. We

1 believe this may apply to other situations where Google has
2 competition.”¹⁰⁴

3 147. Reports indicate that Samsung’s small app store also was caught up in Google’s dubious
4 security net. As androidsage.com reported on June 18, 2018, “[S]ince today, a bunch of Samsung users
5 have reported of Google Play Store flagging the official Samsung Galaxy App Store as potentially
6 dangerous and fake at the extent of even blocking it.”¹⁰⁵

7 **5. Google has substantially foreclosed competition by leveraging agreements with**
8 **OEMs to foreclose third-party distribution and imposing unreasonable and/or**
9 **pretextual technological barriers that stymie rivals.**

10 148. By leveraging its agreements with OEMs to foreclose third-party app distribution, thus
11 relegating third-party app distributors to sideloading, and by imposing technical barriers foreclosing
12 effective competition from sideloaded apps and stores, Google has substantially foreclosed
13 competition and built a nearly impenetrable moat around its distribution monopoly.

14 149. This is exactly what Google intends.

15 150. Indeed, in a 2020 presentation prepared by and presented to senior Google Play
16 executives, Google boasted that its [REDACTED]
17 [REDACTED]—that is, the risk of
18 unhappy developers distributing their apps directly to consumers in order to avoid Google’s generally
19 30% cut of sales. Specifically, the document notes that there [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]

24
25 ¹⁰⁴ Press release available at, *inter alia*: <https://www.androidpolice.com/2018/10/23/aptoide-gains-injunction-google-latest-antitrust-case-compensation-follow/> (last accessed Aug. 15, 2020).

26 ¹⁰⁵ <https://www.androidsage.com/2018/06/18/google-play-protect-blocking-galaxy-app-store-how-to-fix/> (last accessed Aug. 15, 2020).

27 ¹⁰⁶ As noted above, according to Google documents produced in this case, one purpose of the
28 restraints [REDACTED]

1 151. According to Google’s internal estimate, as of [REDACTED]

2 [REDACTED]
3 152. Similarly, Google is aware that its conduct, and particularly the “friction” sideloading
4 creates for users, has further blocked competitors and potential competitors.

5 153. For instance, in a 2018 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]

13 154. Similarly, with respect to Epic Store, Google observed, “Fortnite formidable, but
14 haven’t figured out Android,” and explained that Epic had not succeeded with its sideloading strategy:
15 “Lots of friction in Fortnite installer installation. Side-load. Very big, very slow.”

16 155. Notwithstanding its successful efforts to date, Google recognized that even these
17 nascent competitors, if not blocked, would quickly erode its “Leader advantages.” As that same 2018
18 presentation explained, “Other channels may have a difficult time building size at first, but could reach
19 critical mass, reduce Play’s leader advantages quickly, and quickly accelerate share shift.”

20 156. Google’s Finance Director for Platforms and Ecosystems made a presentation to the
21 CFO of Alphabet around the time of Fortnite’s launch confirmed Google’s fear of a [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28

1 [REDACTED] t
2 [REDACTED]
3 157. Thus, Google understood that its well-resourced competitors, even if starting out small,
4 would erode Google's monopoly power *if not blocked*.

5 **G. Google's Unlawful Practices Harm Developers and Competition.**

6 158. Google's practices harm developers and competition by depressing output, stifling
7 innovation, limiting choice, and extracting a supracompetitive tax of up to 30% on every paid app
8 purchased through the Play Store and every purchase of in-app digital content using Google Play
9 Billing, which must be used by developers who sell in-app content on apps distributed through Google
10 Play. But for Google's anti-competitive restrictions, app developers would be able to distribute their
11 apps through alternative methods, including by providing apps directly to consumers, selling apps
12 through independent app stores, creating their own competing app stores, or forming business
13 relationships with OEMs that could preinstall apps.

14 **1. Google's monopolization of the market stifles innovation.**

15 159. Google's abusive behavior also stifles innovation in the U.S. market for Android OS
16 app distribution.¹⁰⁷

17 160. For example, Amazon devised an alternative model for app distribution through
18 Amazon Underground, which made apps and in-app purchases "actually free" to consumers.¹⁰⁸
19 Amazon Underground paid developers according to how much time consumers spend interacting with
20 the apps.¹⁰⁹
21
22

23 ¹⁰⁷ E.g., Stephen D. Houck, *Injury to Competition/Consumers in High Tech Cases*, St. Johns L.
24 Rev. Vol. 5, Iss. 4, 593, 598 (2001) ("Any assessment of a restraint's anticompetitive impact, however,
25 will be incomplete if limited to price and output effects. The restraint's impact on consumer choice
and innovation must also be considered.").

26 ¹⁰⁸ See Sarah Perez, *Amazon is shutting down its "Underground Actually Free" program that gives*
27 *away free Android apps*, Techcrunch (Aug. 28, 2017), <https://techcrunch.com/2017/04/28/amazon-is-shutting-down-its-underground-actually-free-program-that-gives-away-free-android-apps/> (last
accessed July 19, 2021).

28 ¹⁰⁹ *Id.*

1 161. Google's anticompetitive behavior is likely one reason why Amazon shuttered Amazon
2 Underground in 2019.¹¹⁰ Consistent with Google's own internal assessments, industry analysts
3 perceived Amazon's extreme uphill battle from the outset. One put it this way:

4 The first issue is scale. For a system like this you need critical mass and
5 scale in terms of audience and content. Amazon's hands were tied
6 because they weren't able to make Underground readily available on
7 iOS (obviously) or Google devices.

8 That means they were always going to be limited to those people with
9 Fire devices or who were motivated enough to use more than one app
10 store. . . .¹¹¹

11 162. Another analyst put it thus:

12 **User acquisition is still the biggest challenge**

13 Amazon's revamped plans offer app publishers an innovative new
14 model for monetizing certain apps but it may not be enough to address
15 its major challenge: how to persuade Android users to download an
16 alternative store to Google Play. . . .

17 **Strong app store competition**

18 The app store competition is extremely strong. The Google Play Store
19 offers a catalogue of than more one million apps (far greater than
20 Amazon) and comes preinstalled on almost all Android smartphones
21 outside China. The Google Play Store is more than sufficient for most
22 users' needs and Google reported more than 1.4bn active devices in
23 September 2015.

24 Beyond Amazon's own Fire branded smartphone (now discontinued)
25 and tablets, Amazon's store does not come preinstalled on any devices¹¹²
26 and so app publishers correctly focus first on providing content for
27 Google's store rather than Amazon's.

28 To download the Amazon Underground app, as with its previous
Appstore for Android, users have to change their Android permissions

23 ¹¹⁰ See, e.g., "Why is Amazon shutting down its Underground Initiative?" May 9, 2017,
24 [https://www.pocketgamer.biz/mobile-mavens/65694/why-is-amazon-shutting-down-its-](https://www.pocketgamer.biz/mobile-mavens/65694/why-is-amazon-shutting-down-its-underground-initiative/)
25 [underground-initiative/](https://www.pocketgamer.biz/mobile-mavens/65694/why-is-amazon-shutting-down-its-underground-initiative/) ("It was part of a long-term strategy with bold ambitions to change the way
26 mobile developers made games, but two years on Amazon has announced that Underground will no
longer feature on the Amazon Appstore as of Summer 2017, with the program officially ending in
2019.") (last accessed Aug. 15, 2020).

27 ¹¹¹ *Id.* (quoting Oscar Clark, "Author, Consultant and Independent Developer Rocket Lolly
Games").

28 ¹¹² This was as of October 2015, when the referenced article was published.

1 to enable non-Google Play downloads which is a step too far for most
2 customers. Amazon needs to have its store pre-installed on Android
3 smartphones if it is to drive increased adoption. Smartphone brands that
4 wish to reduce their dependency on Google should be open to such a
5 relationship.

6 **Other stores are unlikely to follow suit, for now**

7 Amazon's Underground app program is a response challenging market
8 position. As a challenger store with limited market share, Amazon has
9 to innovate to attract users. It also needs to give developers a reason to
10 provide content for its store. Amazon can offset the costs of running the
11 Underground program by tying its users more closely into its ecosystem
12 and driving retail transactions and other content revenues; Amazon
13 Prime Video and its retail store are available alongside mobile apps in
14 Underground. Market leaders Apple and Google do not struggle to
15 attract users or app publishers and the share they take from app
16 transactions have become significant revenue streams, so there is no
17 incentive for them to adopt a similar program.¹¹³

18 163. And as Google has done what it can to shut out even a well-resourced potential
19 competitor such as Amazon, Amazon itself continues to soldier on by way of its Amazon Coins
20 program, which allows consumers to buy apps at a discount in the Amazon Appstore.¹¹⁴ For example,
21 on Aug. 15, 2020, the popular game Minecraft for Android OS was priced at the same nominal sum of
22 \$6.99 in both Google Play and the Amazon Appstore.¹¹⁵ But by using Amazon Coins, a purchaser
23 could save 20%, bringing her price to approximately \$5.59:
24

25 ¹¹³ See "Amazon Underground innovates with free apps but faces challenges," Oct. 7, 2015,
26 available at: <https://technology.ihs.com/550085/amazon-underground-innovates-with-free-apps-but-faces-challenges> (last accessed Aug. 15, 2020).

27 ¹¹⁴ Amazon's presumptive revenue split in its own Appstore is also 70% developer / 30% store
28 operator, as with Google and Apple. On the other hand, its Amazon Coins program allows consumers
to save money on the purchase price of apps everyday while developers continue to earn their 70%
developer share. (See https://www.amazon.com/dp/B018HB6E80/ref=twister_B009CDKIA8?_encoding=UTF8&psc=1#where (explaining Amazon Coins programs and noting: "The More You Buy, the More You Save. Amazon Coins come in denominations from 300 to 50,000 Amazon Coins. Bigger denominations always have bigger discounts. The savings on an order of 50,000 Coins is always larger than on an order of 300 Coins."); <https://www.amazon.com/Amazon-Coins-Apps-Games/b?ie=UTF8&node=13927674011> (more on Coins program) (last accessed Aug. 17, 2020).

¹¹⁵ Compare <https://play.google.com/store/apps/details?id=com.mojang.minecraftpe> (last accessed Aug. 15, 2020) with, https://www.amazon.com/Mojang-Minecraft/dp/B00992CF6W/ref=sr_1_1?s=mobile-apps&ie=UTF8&qid=1549260798&sr=1-1&keywords=mincraft (last accessed Aug. 15, 2020).

Minecraft
by [Mojang](#)
Rated: [Guidance Suggested](#)
[4.4 out of 5 stars](#) [83,176 customer ratings](#)
Price: **\$6.99**
Save up to 20% on this app and its in-app items when you purchase Amazon Coins. [Learn More](#)
Sold by: Amazon.com Services LLC.¹¹⁶

164. Unfortunately, there is no evidence that any of these innovative programs has dented Google's market share to any meaningful degree, which is not surprising considering Google's abusive behavior, including its refusal to permit access via Google Play.

165. Google's domination of the U.S. app distribution market also stifles innovation in apps—another way it hurts competition generally. Other vibrant app stores would mean more places for featuring apps. With so many apps available on the market, product can and does get lost in Google Play. Developers and competition generally, not to mention individual end-users, would benefit from other venues that would surface good, new products and encourage the development of yet more and better apps—all of which would engender more output in the market at issue here.

2. Google harms developers by killing competition and diminishing consumer choice.

166. Google's anticompetitive behavior diminishes the choice offered by endeavors such as Amazon Underground, which lowered prices (even to zero, with its Actually Free component), while also offering developers another way to monetize their apps. If even another corporate giant could not overcome Google's anticompetitive policies, there is little hope for other prospective competitors, unless Google is required to change its anticompetitive contracts and practices.

3. Google also harms developers and competition by depressing output.

167. Google's high service fees prevent app developers from selling more apps and in-app products. As a result of lower sales, developers are deprived of the monetary resources and incentives to invest in app and content development and app distribution. Thus, output is depressed.

¹¹⁶ https://www.amazon.com/Mojang-Minecraft/dp/B00992CF6W/ref=sr_1_2?dchild=1&keywords=mincraft&qid=1597603583&s=mobile-apps&sr=1-2 (last accessed Aug. 16, 2020).

1 168. Google's \$0.99 minimum price for U.S. app sales also depresses output. Google itself
2 recognizes this by way of contractual terms that permit lower minimum prices in 18 other countries¹¹⁷:
3 lower prices move more apps. Again, developers lose volume and real money as a result. There is no
4 good or pro-competitive reason to deny them pricing flexibility for minimum-priced apps.

5 **4. Google harms developers by charging a supracompetitive price for distribution**
6 **services for Android OS apps and in-app payment processing.**

7 169. The Google Play Developer Distribution Agreement requires that Google will "display
8 and make [developers'] Products available for viewing, download, and purchase by users" in Google
9 Play in exchange for a "'Service Fee', as set forth [in another document] and as may be revised by
10 Google from time to time with notice to Developer..., will be charged on the sales price and
11 apportioned to the Payment Processor and, if one exists, the Authorized Provider."¹¹⁸

12 170. There is no pro-competitive, or otherwise justified reason for the 15% or 30% service
13 fee that Google charges to U.S. app developers for app and in-app payment processing for most of the
14 class period.¹¹⁹ Google itself has recognized as early as 2009 that [REDACTED]
15 [REDACTED] and today internally estimates its payment processing costs at [REDACTED]
16 [REDACTED]
17 [REDACTED]

18 171. Nor is there justification for Google's 15% service fee, which Google began to offer
19 developers (for subscriptions) in 2018. In fact, that Google offers the 15% rate for certain transactions
20 underscores the supracompetitive nature of Google's 30% commission rate on others. This unnatural
21 price stability, in the face of improving margins from the accrual of economies of scale and lower costs
22

23 ¹¹⁷ See, e.g., ¶ 57, *supra*.

24 ¹¹⁸ Google Play Developer Distribution Agreement, <https://play.google.com/about/developer-distribution-agreement.html> (last accessed Jul. 20, 2021).

25 ¹¹⁹ See, e.g., "A decade on, Apple and Google's 30% app store cut looks pretty cheesy," Aug. 29,
26 2018, available at: https://www.theregister.co.uk/2018/08/29/app_store_duopoly_30_per_cent/
27 ("Apple unveiled the App Store in July 2008, and Android Market the following month, opening with
28 the first Android device that October. Apple set the 30 per cent rate, Google simply followed suit.")
(last accessed Aug. 15, 2020); see also <https://support.google.com/googleplay/android-developer/answer/112622?hl=en> (last accessed Aug. 15, 2020).

1 for various inputs over time, is a sure sign of Google's unlawful monopoly power and abuse of market
2 power. Google immediately imposes this charge on developers by way of its contracts of adhesion.

3 172. Nor do the circumstances give rise to any pro-competitive justification for Google's
4 contractual terms requiring \$0.99 minimum pricing for paid apps and in-app add-ons. This pricing
5 mandate, too, is an abuse of Google's monopoly power.

6 **Supracompetitive Service Fee**

7 173. Google does not have physical inventory (as distinct from a mere bit of digital storage
8 for uploaded content); has a large and growing preinstall base for Google Play Store, which has
9 multiplied not by building more physical stores but simply by replicating an app; and has economies
10 of scale that have grown over time. Yet for most of the relevant period, Google has taken from
11 developers nearly a third of every dollar spent as a fee for all covered Google Play transactions. Given
12 how large the market is, Google could substantially lower its 30% (or 15%) service fee to a reasonable
13 rate that would cover the cost of operating the Play Store and process transactions.

14 174. In fact, Google's internal documents reflect that the rate could be set at [REDACTED]. But for
15 Google's improperly acquired monopoly in the U.S. market for Android OS app distribution and in-
16 app payment processing, which it maintains through contracts and technological barriers, Google
17 would be forced to compete and lower the exorbitant fees it extracts from developers.

18 175. Internal Google documents discussing its commission note "discomfort with what we
19 are charging" and state: "[W]e would probably have a stronger backbone if we felt secure about the
20 value exchange."

21 176. Meanwhile, managers overseeing the Google Play Store also complain internally about
22 their company's [REDACTED] [REDACTED] One
23 presentation states: [REDACTED]

24 [REDACTED]

25 [REDACTED]

Epic Games

177. Epic provides a benchmark for what a relatively more competitive rate app store service fee would be. In stark contrast to Google’s supracompetitive 30% (or 15%) service fee, for its own store, Epic will employ a 12% service fee.

178. This is plenty to achieve a reasonable profit, as explained by Epic’s CEO¹²⁰: “Fixed costs of developing and supporting the platform become negligible at a large scale. In our analysis, stores charging 30 per cent are marking up their costs by 300 to 400 per cent’... ‘But with developers receiving 88 per cent of revenue and Epic receiving 12 per cent, this store will still be a profitable business for us.’”¹²¹

179. That a newcomer like Epic can run a store profitably with a 12% fee demonstrates how supracompetitive Google’s 30% (or 15%) service fee truly is. Given Google’s experience, huge preinstallation base for Google Play, and its other economies of scale, it is likely that Google could earn a healthy profit by charging even less than 12% per covered transaction.

180. Notably, Epic’s CEO indicates the rates are “around 2.5 percent to 3.5 percent . . . for major payment methods.”¹²² Yet for most of the relevant period, Google charged 30% as its fee for in-app purchases (with some subscription rates at 15%, as referenced herein). And this matters deeply to Android developers. The ability for consumers to pay in-app is critical to app developers, since consumers might forego purchasing in-app digital products if they cannot readily make the purchase with the developer’s app.¹²³

181. Epic has repeatedly tried to do something about this monopolist-imposed rate, to no avail. In fact, Epic recently tried to offer a lower rate to consumers for virtual currency in its popular

¹²⁰“New Epic Games Store takes on Steam with just 12% revenue share – Tim Sweeney answers our questions,” *MCV*, <https://www.mcvuk.com/business/new-epic-games-store-takes-on-steam-with-just-12-revenue-share-tim-sweeney-answers-our-questions> (dated Dec. 4, 2018) (last accessed Aug. 15, 2020).

¹²¹ *Id.*

¹²² These figures are [REDACTED]; as noted above, a 2021 presentation estimates Google’s payment processing costs at [REDACTED].

¹²³ Complaint for Injunctive Relief, *Epic Games, Inc. v. Google, et al.*, No. 20-cv-05671 (N.D. Cal.), filed Aug. 13, 2020, ECF No. 1, ¶ 134.

Fortnite app for Android, which is distributed via Google Play.¹²⁴ Epic offered consumers a choice: pay through Google’s payment processing system, or pay 20% less through Epic’s.¹²⁵ Within hours, Google, in an exercise of its enormous market power, responded by kicking Fortnite out of Google Play.¹²⁶

Chrome Web Store

182. Another comparator comes from Google itself. Google has for years operated the Chrome Web Store, whereby it sells certain apps for use on personal computers.¹²⁷ Google’s service fee for purchases of paid apps or in-app products is only 5%,¹²⁸ a fraction of the 30% default rate that Google Play has extracted from app developers for most of the relevant period. There is no indication that Google is losing money by way of service fees set at 5%. What is clear is that, unlike Google Play, the Chrome Web Store faced competition from distribution channels.

183. Tellingly, however, when App Runtime for Chrome (“ARC”) apps are concerned, the fee goes up to 30% for in-app (and one-time¹²⁹) payments. ARC is a project Google introduced in 2014 to bring Android apps to devices running Google’s Chrome OS.¹³⁰ According to Google:

Note: In-app payments for ARC apps are subject to a 30% transaction fee. For example, if you charge \$1.99 for an item offered in an ARC app, you’ll receive \$1.39. This is to ensure a consistent pricing structure with in-app payments made in apps available on Google Play. ARC does not currently support other purchase models including up-front payments,

¹²⁴ *Id.* ¶ 28.

¹²⁵ *Id.*

¹²⁶ *Id.* ¶ 29.

¹²⁷ See <https://chrome.google.com/webstore/category/extensions> (last accessed Aug. 15, 2020).

¹²⁸ <https://developer.chrome.com/webstore/pricing#seller> (“Each time someone buys your app using Chrome Web Store Payments, Google charges you a 5% transaction fee. For example, if you charge \$1.99, you’ll receive \$1.89; if you charge \$9.99, you’ll receive \$9.49.”) (last accessed Aug. 15, 2020); <https://developer.chrome.com/webstore/money> (same service fee for in-app payments when using the Chrome Web Store API) (last accessed Aug. 15, 2020).

¹²⁹ This is evidently equivalent to charging some amount for the app itself. (See n.155, *infra*.)

¹³⁰ “First set of Android apps coming to a Chromebook near you,” Sept. 11, 2014, available at: <https://chrome.googleblog.com/2014/09/first-set-of-android-apps-coming-to.html> (last accessed Aug. 15, 2020).

1 subscriptions and in-app version upgrades; as these types of purchases
2 require provisioning from Google Play which is not currently enabled.¹³¹

3 In other words, Google *could* charge much less, but maintains the generally 30% Google Play fee for
4 internal “consistency” reasons.

5 **H. Google Monopolizes the Market for Android In-App Payment Processing for Digital**
6 **Products.**

7 184. In addition to imposing a supracompetitive service fee for Android OS app distribution,
8 Google forces developers to use Google Play Billing for all in-app digital content purchases. In doing
9 so, Google illegally ties in-app payment processing to its distribution services, which allowed it to
10 monopolize the market for Android In-App Payment Processing for Digital Products.

11 **1. The In-App Payment Processing Market is a relevant antitrust market.**

12 185. Payment processing consist of software employed by merchants that performs the
13 necessary steps to verify and accept (or decline) a customer’s purchase (or attempted purchase).
14 Payment processing frequently provides additional customer-facing functionalities such as invoicing,
15 payment history, and refund processing.

16 186. The ability to make quick, seamless purchases within an app itself is critical to the
17 consumer’s experience and to the likelihood of purchase. If a consumer were required to purchase in-
18 app digital content only outside the mobile app, that user might simply abandon the purchase or stop
19 interacting with the app altogether. And in-app purchases are critical to developers: the revenue
20 generated from in-app purchases is substantially greater than the revenue generated by pay-to-
21 download apps.

22 187. Accordingly, developers seek to make their in-app purchase experience as frictionless
23 as possible. Users similarly seek to consummate in-app transactions with the least interruption of their
24 use of the app. A payment processing product that requires the user to exit an app to complete a
25
26
27

28 ¹³¹ <https://developer.chrome.com/webstore/money> (last accessed Aug. 15, 2020).

1 transaction cannot substitute for one that consummates transactions within the app. The more friction
2 and time a payment requires, the less likely a consumer is to complete the transaction. Developers and
3 consumers alike would not regard a payment processing product that required exiting the app as
4 reasonably interchangeable with payment processors that support in-app payment.

5
6 188. In particular, purchasing through a developer's website is not a substitute for in-app
7 payment processing. Not only would this require the user to exit the app, but Google's policies prohibit
8 developers from referring or directing users to websites for payment outside the app environment.¹³²

9 189. Moreover, the Android In-App Payment Processing for Digital Products Market is
10 distinct from app distribution, as they are separate products and separate demand exists for each. In
11 other digital ecosystems, payment and distribution services are routinely sold separately. In fact,
12 Google already allows this within the Android mobile ecosystem: developers may use a third-party
13 payment processor like Adyen, PayPal, and Braintree for in-app purchases of physical products and
14 out-of-app services such as those offered through Amazon, Airbnb, and Uber. For in-app purchases of
15 digital content, however, developers must use Google Play Billing as their exclusive payment
16 processor if they wish to distribute their apps through the Google Play Store.

17
18 **2. Google has unlawfully tied Google Play Billing to the Google Play Store.**

19 190. As a condition of distribution through the Google Play Store, however, Google requires
20 developers to exclusively use Google Play Billing, Google's in-app payment processor, to process all
21 in-app purchases of digital content.

22
23 191. Google requires developers to enter its standardized DDA as a condition of having their
24 apps distributed through the Google Play Store. The DDA unlawfully ties use of Google's in-app
25

26
27 ¹³² Play Console Help, Policy Center, <https://support.google.com/googleplay/android-developer/answer/9858738> ("Apps other than those described in 2(b) may not lead users to a
28 payment method other than Google Play's billing system").

1 payment processor to distribution through the Google Play Store. It also constitutes an unlawful
2 exclusive-dealing arrangement.

3 192. Under Section 3.2 of the DDA, developers are required to enter into a separate
4 agreement with Google Payment, a Google subsidiary that is not part of Google's Play Store business
5 unit, to use Google Play Billing for all digital content sold in apps downloaded through the Play Store.
6

7 193. Further, Section 4.1 of the DDA requires that developers comply with Google's
8 Developer Program Policies. Those policies require that "1. Developers charging for apps and
9 downloads from Google Play must use Google [Play Billing] as the method of payment. 2. Play-
10 distributed apps must use Google [Play Billing] as the method of payment if they require or accept
11 payment for access to features or services, including any app functionality, digital content or goods."¹³³
12 By contrast, Google's policies require that developers may not use Google Play Billing to process
13 payments "for the purchase or rental of physical goods (such as groceries, clothing, housewares,
14 electronics)"; "for the purchase of physical services (such as transportation services, cleaning services,
15 airfare, gym memberships, food delivery, tickets for live events)"; or "a remittance in respect of a
16 credit card bill or utility bill (such as cable and telecommunications services)."¹³⁴ That is, for physical
17 products and services, Google's policies require a payment processor other than Google Play Billing.
18

19 194. Furthermore, for payments subject to Google's requirement to use Google Play Billing,
20 developers are prohibited from "lead[ing] users to a payment method other than Google [Play
21 Billing]."¹³⁵ This provision bars developers from linking to a website or other service that would
22 process payments more cheaply. The restrictions are comprehensive: "Within an app, developers may
23 not lead users to a payment method other than Google Play's billing system. This includes directly
24
25

26 ¹³³ Google Play Developer Distribution Agreement, <https://play.google.com/about/developer-distribution-agreement.html> (last accessed Jul. 20, 2021).

27 ¹³⁴ *Id.*

28 ¹³⁵ *Id.*

1 linking to a webpage that could lead to an alternate payment method or using language that encourages
2 a user to purchase the digital item outside of the app.”¹³⁶

3 195. Together, these provisions make Google Play Billing the only in-app payment
4 processor that a developer can use for digital content within Android apps. Google’s contractual tie of
5 Google Play Billing to Google Play Services illegally maintains its monopoly in the In-App Payment
6 Processing Market.
7

8 **3. But for Google’s anticompetitive tie, Developers would choose between a variety**
9 **of reliable and less expensive payment processing options.**

10 196. If Google did not require developers to use its payment processing to pay for in-app
11 digital content, developers would be free to choose from other reliable payment processors, including
12 PayPal, Braintree, Adyen, WorldPay, and Chase Limited – and could also write their own proprietary
13 payment processing software. These alternatives would enter the In-App Payment Processing for
14 Digital Products market, but for Google’s anticompetitive tie. Indeed, Google is now forcing these
15 alternatives out of the market as to digital streaming services, to which Google is currently extending
16 its unlawful tie.
17

18 197. Moreover, tying together these two distinct products—app distribution and in app-
19 payment processing—is not technologically necessary. Third-party payment companies operate safely
20 and effectively in other digital and real-world ecosystems, including, for example, desktop computers
21 and in-app purchases of physical goods. Companies like PayPal and Braintree offer payment
22 processing at a significantly lower price than Google Play Billing. These major payment processors
23 have all aligned on the same fee (to the cent) —2.9% + 30 cents—vastly lower than Google’s fully
24 loaded service fee of 30% (or 15%). (As noted above, these percentages are consistent with Google’s
25 estimation of its own payment processing costs: [REDACTED]. These companies also compete on various
26
27

28 ¹³⁶ *Id.*

1 dimensions of convenience, speed, security, privacy, and customer service. Google, in contrast, faces
2 no competitive pressure to improve its service or offerings with regard to any of these characteristics.

3 198. In fact, developers often choose to use a competitor, rather than Google's offerings, for
4 their payment processing where Google's enforcement practices permit, as with in-app purchases of
5 streaming services. Google's competitors typically offer lower costs, more favorable terms of service,
6 more timely payment to merchants, more payment method options for users (e.g., Apple Pay, Venmo,
7 bank transfer), and more freedom to set prices than Google offers. These competitors' products could
8 readily be adapted (or continue to be permitted) for use in the In-App Payment Processing Market, i.e.,
9 for in-app purchases of digital content. Google's unlawful contracts and policies are the primary reason
10 these competitors have negligible market share. Third-party payment processors stand ready to
11 compete, but Google's illegal tying arrangement prevents them from doing so.
12

13 199. Google's anticompetitive tie harms developers and consumers, and reduces overall
14 output by eliminating alternative avenues for in-app payment processing that consumers and
15 developers would otherwise use. Rather than competing on the merits, and creating more efficient,
16 innovative, or less expensive payment processing, Google simply blocks its competitive threats.
17

18 **4. Google's in-app payment processing tie is not necessary to incentivize its**
19 **investment in the Play Store or Android.**

20 200. Google's tie is not necessary for it to reap significant profits from the Google Play Store
21 and the Android ecosystem, nor for it to continue to invest in the quality of these products. Google's
22 core business model for Android is to collect detailed personal data from Android users and monetize
23 that data through targeted advertising.

24 201. Google earns substantial revenues from other digital advertising as well: the display
25 advertising it sells on third-party sites; ads within the Google-owned-and-operated apps it mandates
26 that OEMs preinstall; ads within the Play Store; and Google's AdMob, which is among the most
27 popular services developers use to monetize through advertising. The latter two earn Google billions
28

1 of dollars solely from or via developers, and developers spend billions on Google's other advertising
2 channels to reach consumers. Nor is the tie necessary to prevent "free riding" by developers as to
3 distribution via the Google Play Store. In fact, Google's current model encourages free riding. Among
4 the apps that benefit from being on the Google Play Store but do not sell digital goods are many
5 categories of very valuable commercial apps such as, for example, those used by banks and other
6 financial institutions, brokerages, insurance companies, and real estate services to interact with
7 customers, in addition to those apps that sell billions of dollars of physical goods (e.g., Amazon),
8 services (e.g., Uber), or advertising (e.g., Facebook). Google could elect to charge a reasonable fee for
9 the Google Play Store's distribution services, but it does not. Instead, it reaps a monopolistic windfall
10 from Android in-app payments, to the detriment of developers and consumers alike.

11
12 **5. Google's unlawful tie has led to supracompetitive service fees and other**
13 **anticompetitive effects in the In-App Payment Processing Market.**

14 202. By requiring that apps purchased through the Google Play Store also use Google Play
15 Billing for the purchase of in-app digital content, Google has illegally engaged in tying and exclusive
16 dealing, monopolizing the Android In-App Payment for Digital Product Processing market. Google's
17 anticompetitive conduct has demonstrable anticompetitive effects on the In-App Payment Processing
18 for Digital Products market that harm competition and injure developers.

19 203. Google's supracompetitive commission on in-app purchases raises prices for
20 consumers, reduces profits for developers, and chills the market for app development and digital
21 content development by making digital content less profitable.

22 204. Google could not maintain this extravagant commission in a competitive market free
23 from Google's illegal tying, exclusive dealing, and other anticompetitive conduct. The fee is an order
24 of magnitude higher than fees for platforms in which there is competition for electronic payment
25 processing.
26
27
28

1 205. Without Google’s exclusive-dealing mandate, developers would have more options for
2 in-app payment processing; with the potential for higher profits, developers could dedicate more
3 money to research and development, marketing, and creating new apps, further increasing output.

4 206. By requiring that apps purchased through the Play Store use Google Play Billing for
5 the purchase of digital content, developers lose features like the following, which are not offered by
6 Google Play Billing but are available through developers’ own proprietary payment systems or
7 processors like Adyen and WorldPay:
8

- 9 a. Key information about failed consumer in-app purchase transactions, such as the
10 specific reason for the failure (e.g., insufficient funds). Google Play Billing indicates
11 only that a problem exists with the transaction without further description.
12 b. Features that minimize “involuntary churn,” or the inadvertent loss of users through
13 short-term credit card issues such as a credit card expiring or being put on hold.
14 c. Data indicating that a given consumer card has been recently used successfully with
15 other merchants. This data can increase a developer’s confidence that the consumer is
16 likely to pay.
17 d. Free trial services. Some developers want to offer free trial experiences periodically (a
18 feature available through some non-Google payment processors), but Google Play
19 Billing allows only one free trial service per lifetime per product.
20 e. Customized cancellation experiences. When a user discontinues in-app subscriptions
21 (for example, after finding a job with a job-seeking app or finding a dating partner with
22 a dating app), developers would like to learn about the user’s decision to discontinue
23 and, where appropriate, upsell the user. Google Play Billing does not permit developers
24 flexibility to gather this information or offer additional services.
25

26 207. In a competitive market for in-app payment processing, developers could create their
27 own payment infrastructure, or accept third party payment processing—just as retailers accept different
28 types of payment including credit, debit, and prepaid cards. Developers could offer payment systems
based on alternative currencies or billing to cell phone carriers. These innovations are substantially
foreclosed by Google’s anticompetitive contractual requirements.

29 208. Indeed, native and third-party payment processing products can be better tailored to
30 developers’ needs. Absent Google’s exclusive-dealing requirements, developers could compete in the

1 In-App Payment Processing Market themselves or partner with third-party payment processors that
2 charge a fraction of what Google extracts. This would allow developers to offer not only competitive
3 pricing but also a variety of payment options tailored to their users' needs. For example, in many
4 countries outside the United States, users can purchase pre-paid "Paysafecards" in convenience stores
5 that can then be used to purchase in-game content in Fortnite without connecting to a credit card or
6 bank account. Developers have the best information on their own business models and are thus best
7 placed to select their own payment processing solutions.
8

9 209. Google's anticompetitive conduct harms potential payment processing competitors
10 who would otherwise be able to innovate and offer developers and consumers alternative payment
11 processing tools that provide better functionality, lower prices, and better security, but are barred from
12 entering the In-App Payment Processing for Digital Products market. Because Google prevents them
13 from accessing a large portion of the market, their sales and profits are also lower than they would be
14 but for Google's conduct.
15

16 210. Google also harms developers by preventing them from efficiently informing
17 consumers *through their app* of lower-priced payment options for in-app purchases and app
18 subscriptions, forcing developers to incur additional costs to communicate through other means.
19 Developers whose only relationship with their customers is through their app are effectively foreclosed
20 from providing this information. Communication through an app is low-cost and efficient. But Google
21 stops any such communication that threatens its in-app-payment- processing monopoly, thus distorting
22 the competitive process and harming consumers, many of whom are unable to learn about better deals.
23

24 211. There are no procompetitive efficiencies from Google's tie of distribution and payment
25 processing that outweigh the harm to consumers, developers, and potentially competitive payment
26 processors. All market participants are harmed by Google's forced use of in-app payments.
27
28

1 212. As with app distribution, Google pretextually defends the tie by citing security
2 concerns, but there are many highly secure and reliable payment processing systems. If Google were
3 truly concerned about security, it would simply require that payment processors use reasonable
4 technical security protocols. In fact, security is equally important to payment systems for both digital
5 and physical content, and yet Google locks in Google Play Billing only for digital content. Google's
6 internal strategy around pricing and policy for in-app payments reveals that its invocation of security
7 concerns is simply a public-relations strategy—a means of justifying Google's anticompetitive conduct
8 as opposed to a genuine security concern.
9

10 213. Google's tie of app distribution through the Google Play Store with developers'
11 exclusive use of Google Play Billing to process in-app purchases of digital content also enables Google
12 to gather information on consumers making in-app purchases, thereby harming consumers who would
13 otherwise have the choice to use payment processors that do not share their information with Google.
14 There are no welfare-enhancing or otherwise legitimate justifications for this tie. Any security or
15 consistency that Google can offer consumers in the payment processing market can still be offered in
16 a competitive market, at a competitive price. Nor does Google need to monetize the Play Store in this
17 manner in order to maintain the Android ecosystem at large.
18

19 214. In short, Google has used its monopolistic control over the Android App Distribution
20 Market to force developers to use Google Play Billing as their exclusive in-app payment processor.
21 Google thus deprives developers from choosing between competing in-app payment options, which
22 could result in higher revenues and even more security.
23

24 **VI. INTERSTATE TRADE AND COMMERCE**

25 215. The activities of Google as alleged in this complaint were within the flow of, and
26 substantially affected, interstate commerce. Google Play sells distribution and payment-processing
27 services across, and without regard to, state lines.
28

VII. RELEVANT MARKETS

A. First Relevant Market

216. The antitrust injuries alleged herein, including harm to developers and competition, have occurred in the U.S. market for distribution of Android OS apps, i.e., for distribution services provided to U.S. Android app developers.¹³⁷ This market is heavily dominated, to the point of monopoly power, by Google, including by way of its Google Play Store, thanks to Google's willful and anticompetitive behavior as described in this complaint. As the European Commission has found, Google and Google Play, via various anticompetitive practices, have acquired some 90 percent of the market worldwide in Android app distribution.¹³⁸ There is no reason to believe that Google's share is less than that in the U.S. Accordingly, Google's share of the relevant market for Android app and in-app distribution services is believed, and therefore alleged, to have reached a similar level of dominance.

217. Competitors in the relevant market exist, such as Amazon, Aptoide, and Samsung, but they are weak in terms of their own market power. Google has "cut off the air supply" of each such competitor by its unlawful contracts, policies, and actions. None has made a serious dent in Google's market share.

218. Furthermore, due to the incompatibility of Apple's iOS with Google's Android OS, and the resultant incompatibility of iOS and Android OS apps; due to Google's status as a bottleneck retailer; and due, *inter alia*, to the high switching costs among end users, as well as plaintiffs and putative class members, Apple's App Store and corresponding distribution services for iOS apps offers no competition to, and is not a substitute for, Google's distribution services for Android OS apps.

¹³⁷ Cf. "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," July 18, 2018, available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm ("Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google's app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices.").

¹³⁸ See European Commission, *Google Android*, Case AT 40099, Commission Decision of 18 July 2018, at 92-97, available at https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf (last accessed Aug. 17, 2020).

1 Developers, industry, and governments understand that the Android market alleged herein is a discrete
2 one, which Google monopolizes.

3 219. For the reasons alleged herein, including the foregoing, the relevant market is a single-
4 brand market or, alternatively, a submarket of a larger market that includes, *inter alia*, other mobile
5 OS app distribution services.

6 220. Google's restraints on competition directly impact the U.S. market for Android OS
7 distribution services as alleged herein. Google permits and encourages U.S. app developers to sell their
8 apps via Google Play to non-U.S. nationals, and U.S. developers (including the Plaintiffs) do so. Upon
9 information and belief, these developers' business relationship and dealings are primarily with Google
10 LLC and Google Payment Corp., which are U.S. entities. Therefore, the Foreign Trade Antitrust
11 Improvement Act does not apply. Alternatively, its exceptions apply, including because the conduct
12 alleged has a direct, substantial, and reasonably foreseeable effect on trade or commerce which is not
13 trade or commerce with foreign nations.

14 221. Google is a direct seller of distribution services to Android developers for the sale of
15 apps in or via the Google Play Store and for add-ons and other products sold in those apps.¹³⁹

16 222. Plaintiffs seek relief on behalf of themselves and other developers. Insofar as Google
17 Play may be or is a two-sided platform, lower prices would not lead to any discernible negative indirect
18 network effects under the circumstances described herein. For example, unlike on credit-card
19 transaction platforms, lower fees or prices would not mean less money available to pay rebates or
20 rewards to consumers. To the contrary, Google does not share its service fees with consumers. Here,
21 Google's restraints do not help to establish or enhance participation *inter se* developers and consumers,
22 nor do they help to prevent erosion in participation. In fact, Google can point to no considerations that
23 countervail the propriety of the monetary and injunctive relief that Plaintiffs seek.

24
25
26 ¹³⁹ See, e.g., <https://play.google.com/store> (offering various digital products to consumers for
27 purchase, including apps, at various price points) (last accessed Aug. 15, 2020). The Google Play
28 mobile client is installed on hundreds of millions of Android OS devices, as alleged herein, and
similarly offers various products, including apps, for purchase and sale.

223. *Alternatively*, the antitrust injuries alleged herein, including harm to developers and competition, have occurred in the U.S. Android app distribution market. This market includes the Play Store, other app stores for Google Android devices, such as Samsung’s Galaxy Apps store and the Amazon AppStore, and independent app stores, such as Aptoide. It also includes app stores for non-Google (“forked”) Android devices, such as the app store Amazon developed for its own Android OS (Fire OS).

224. The relevant market does not include app stores for non-Android smart mobile OSs such as the (now defunct) Windows Mobile Store (compatible only with Microsoft’s Windows Mobile OS) or Apple’s App Store (compatible only with iOS), because app stores are OS-specific. A consumer who owns an Android smartphone cannot use an app store developed for a non-Android OS, and a device manufacturer that preinstalls an app store on an Android device cannot install an app store that runs on a non-Android OS.

225. Due to the incompatibility of Apple’s iOS with Google’s Android OS, and the resulting incompatibility of iOS and Android OS apps; due to Google’s status as a bottleneck retailer; and due, *inter alia*, to the high switching costs among end users, as well as Plaintiffs and putative class members, Apple’s App Store and corresponding distribution services for iOS apps offers no competition to, and are not a substitute for, Google’s distribution services for Android OS apps. Developers, industries, and governments understand that the Android market alleged herein is a discrete one, which Google monopolizes.

226. In the alternative, the relevant market is a submarket of a larger market that includes, *inter alia*, Apple’s App Store.

B. Second Relevant Market

227. The antitrust injuries alleged herein, including harm to developers and competition, have occurred in the U.S. market for Android in-app payment processing for digital products, i.e., for payment processing provided to U.S. Android app developers for these products.¹⁴⁰ Google has

¹⁴⁰ Cf. “Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google’s search engine,” July 18, 2018, available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm (“Google is dominant in the worldwide

1 enormous power in this market, thanks to its willful and anticompetitive behavior as described in this
2 complaint. As the European Commission has found, Google and Google Play, via various
3 anticompetitive practices, have acquired some 90 percent of the market worldwide in Android app
4 distribution.¹⁴¹ And with few exceptions, Google requires the use of Google Play Billing, its in-app
5 payment system for in-app product distributions. There, Google's share of the relevant market for
6 Android in-app payment processing for digital products is believed, and therefore alleged, to have
7 reached monopoly status.

8 228. Competitors and would-be competitors in the relevant market exist, but their share is
9 exceedingly small given Google's insistence that Android app developers use Google Play Billing for
10 digital products sold in apps acquired from Google Play. These competitors, such as PayPal, Stripe,
11 and Square, charge many magnitudes less than Google,¹⁴² and they provide better service, including
12 quicker access to funds.¹⁴³ Google has "cut off the air supply" of each actual and potential competitor
13 in the market for Android in-app payment processing by Google's abusive contracts, policies, and
14 actions. And given the high sales and monetary value of in-app products,¹⁴⁴ certainly the effect on
15 commerce in the market for these services is substantial.

16 229. Again, due to Google's exclusionary contracts and policies, there is no substitute for
17 Google's payment processing. Developers, industries, and governments understand that the Android
18 market alleged herein is a discrete one, which Google monopolizes.

19
20 market (excluding China) for app stores for the Android mobile operating system. Google's app store,
the Play Store, accounts for more than 90% of apps downloaded on Android devices.").

21 ¹⁴¹ See n.158, *supra*.

22 ¹⁴² In fact, PayPal has a microtransactions program for sellers whose transactions average less than
23 \$10. Where funds come from a PayPal account in the U.S., PayPal charges a fee of 5.0% of the
transaction plus a fixed fee based on currency. See "Micropayment Fees,"
<https://www.paypal.com/us/webapps/mpp/merchant-fees> (last accessed Aug. 17, 2020).

24 ¹⁴³ Cf. "Receiving Payout," available at: <https://stripe.com/docs/payouts#payoutschedule> (referring
25 to two-business-day and seven-calendar-day payout schedule for U.S. accounts, depending on assessed
risk level, for the payment processor Stripe) (last accessed Sept. 27, 2019).

26 ¹⁴⁴ See, e.g., *Consumer Spending in Mobile Apps Grew 17% in 2019 to Exceed \$83 Billion*
27 *Globally*, SensorTower (Jan. 6, 2020), [https://sensortower.com/blog/app-revenue-and-downloads-](https://sensortower.com/blog/app-revenue-and-downloads-2019)
28 [2019](https://sensortower.com/blog/app-revenue-and-downloads-2019) ("An estimated \$61.7 billion was spent in mobile games across both stores last year, 12.8 percent
more than 2018's total of \$54.7 billion. This was 74 percent of all in-app spending for 2019[.]") (last
accessed Aug. 17, 2020).

230. Based on the reasons alleged herein, including the foregoing, the relevant market is a single-brand market.

231. Google's restraints on competition directly impact the U.S. market for Android in-app payment processing as alleged herein. Google permits and encourages U.S. app developers to sell their in-app digital content to non-U.S. nationals, and U.S. developers (including Plaintiff Pure Sweat Basketball) do so. Upon information and belief, these developers' business relationship and dealings are primarily with Google LLC and Google Payment Corp., which are U.S. entities. Therefore, the Foreign Trade Antitrust Improvement Act does not apply. Alternatively, its exceptions apply, including because the conduct alleged has a direct, substantial, and reasonably foreseeable effect on trade or commerce which is not trade or commerce with foreign nations.

232. Google is a direct seller of Android in-app payment processing services to Android developers for the sale of apps in or via the Google Play Store and for in-app digital content sold using Google Play Billing.¹⁴⁵

233. Plaintiffs seek relief on behalf of themselves and other developers. Insofar as Google Play may be or is a two-sided platform, lower prices would not lead to any discernible negative indirect network effects under the circumstances described herein. For example, unlike on credit-card transaction platforms, lower fees or prices would not mean less money available to pay rebates or rewards to consumers. To the contrary, Google does not share its service fees with consumers. Here, Google's restraints do not help to establish or enhance participation *inter se* developers and consumers, nor do they help to prevent erosion in participation. In fact, Google can point to no considerations that countervail the propriety of the monetary and injunctive relief that Plaintiffs seek.

VIII. CLASS ALLEGATIONS

234. Plaintiffs bring this proposed class action for damages and injunctive relief pursuant to Fed. R. Civ. P. 23(b)(1), (2), and (3).

¹⁴⁵ See, e.g., <https://play.google.com/store> (offering various digital products to consumers for purchase, including apps, at various price points) (last accessed Aug. 15, 2020). The Google Play mobile client is installed on hundreds of millions of Android OS devices, as alleged herein, and similarly offers various products, including apps, for purchase and sale.

1 235. Plaintiffs bring this action on their own behalf and the following nationwide class, on
2 the basis of federal law claims as alleged herein, or California state law claims as alleged herein, or
3 both:

4 All U.S. persons or entities that paid Google a “service fee” on: (a) any
5 paid Android OS app sold in or via the Google Play store, in or via any
6 U.S. or foreign Google Play storefront; or (b) any paid in-app digital
7 content (including subscriptions) sold via Google Play Billing on an
8 Android OS app distributed via the Google Play Store, in or via any U.S.
9 or foreign Google Play storefront.

10 Excluded from this proposed class are the defendants; defendants’ affiliates and subsidiaries;
11 defendants’ current or former employees, officers, directors, agents, and representatives; the district
12 judge or magistrate judge to whom this case is assigned, as well as those judges’ immediate family
13 members; and all governmental entities.

14 236. **Numerosity:** The exact number of the members of the proposed class is unknown and
15 is not available to the Plaintiffs at this time, but upon information and belief, the class will consist of
16 many thousands of members such that individual joinder in this case is impracticable.

17 237. **Commonality:** Numerous questions of law and fact are common to the claims of the
18 Plaintiffs and members of the proposed class. These include, but are not limited to:

19 a. Whether Google unlawfully has conditioned the contractual right of any
20 manufacturer of any Android OS mobile telephone or tablet to preinstall desired Google applications
21 such as the YouTube or Google Maps apps on the manufacturer’s agreement also to install the Google
22 Play client, with the object of acquiring or maintaining monopoly status in the U.S. market for Android
23 OS app distribution (and correspondingly high market shares in the markets for Android OS
24 distribution services and in-app payment processing);

25 b. Whether there is a U.S. antitrust market (or submarket) for Android OS app
26 distribution services, i.e., for distribution services provided to U.S. Android app developers;

27 c. Whether there is a U.S. market for Android in-app payment processing, i.e., for
28 payment processing provided to U.S. Android app developers;

29 d. Whether Google has unlawfully monopolized, or attempted to monopolize, the
30 foregoing markets or submarket;

1 e. Whether competition in the U.S. market for Android OS distribution services,
2 or payment processing, has been restrained and harmed by Google's monopolization, or attempted
3 monopolization, of such market(s);

4 f. Whether Google has imposed contracts on developers that restrain trade as
5 alleged herein;

6 g. Whether developers have been harmed, including by way of having paid more
7 for app service or distribution fees, or in-app product payment processing fees, than they would have
8 but for Google's unlawful conduct, as a result of Google's unlawful practices;

9 h. Whether Plaintiffs and members of the proposed class are entitled to declaratory
10 or injunctive relief to halt Google's unlawful practices, and to their attorney fees, costs, and expenses;

11 i. Whether Plaintiffs and members of the proposed class are entitled to any
12 damages or restitution incidental to the declaratory or injunctive relief they seek, and to their attorney
13 fees, costs, and expenses related to any recovery of such monetary relief; and

14 j. Whether Plaintiffs and members of the proposed class are otherwise entitled to
15 any damages or restitution, and to their attorney fees, costs, and expenses related to any recovery of
16 such monetary relief.

17 238. **Typicality:** Plaintiffs' claims are typical of the claims of the members of the proposed
18 class. The factual and legal bases of Google's liability are the same and resulted in injury to Plaintiffs
19 and all of the other members of the proposed class.

20 239. **Adequate representation:** Plaintiffs will represent and protect the interests of the
21 proposed class both fairly and adequately. They have retained counsel competent and experienced in
22 complex class-action litigation. Plaintiffs have no interests that are antagonistic to those of the
23 proposed class, and their interests do not conflict with the interests of the proposed class members they
24 seek to represent.

25 240. **Prevention of inconsistent or varying adjudications:** If prosecution of myriad
26 individual actions for the conduct complained of were undertaken, there likely would be inconsistent
27 or varying results. This would have the effect of establishing incompatible standards of conduct for
28 the Defendants. Certification of Plaintiffs' proposed class would prevent these undesirable outcomes.

241. **Injunctive and declaratory relief:** By way of its conduct described in this complaint, the Defendants have acted on grounds that apply generally to the proposed class. Accordingly, final injunctive relief or corresponding declaratory relief is appropriate respecting the class as a whole.

242. **Predominance and superiority:** This proposed class action is appropriate for certification. Class proceedings on these facts and this law are superior to all other available methods for the fair and efficient adjudication of this controversy, given that joinder of all members is impracticable. Even if members of the proposed class could sustain individual litigation, that course would not be preferable to a class action because individual litigation would increase the delay and expense to the parties due to the complex factual and legal controversies present in this matter. Here, the class action device will present far fewer management difficulties, and it will provide the benefit of a single adjudication, economies of scale, and comprehensive supervision by this Court. Further, uniformity of decisions will be ensured.

IX. APPLICABILITY OF CALIFORNIA LAW

243. There is a California law provision incorporated by reference in the Google Play Terms of Service.¹⁴⁶ Accordingly, Plaintiffs allege that California law applies to the state law claims they assert on their own behalf, and on behalf of the proposed nationwide class.

244. Furthermore, upon information and belief, the unlawful conduct alleged in this complaint, including the drafting, dissemination, and consummation of anticompetitive contracts and policies, as well as the levying and collection of Google's supracompetitive 30% (or 15%) service fee on Google Play purchases, and the enforcement of minimum-price terms, was effected, implemented, adopted, and ratified in the state of California, where Google LLC and Google Payment Corp. maintain their U.S. headquarters. Therefore, a substantial part of the anticompetitive conduct took place in

¹⁴⁶ See Google Play Terms of Service, available at: <https://play.google.com/about/play-terms/index.html>, which incorporates the Google Terms of Service, the latter of which is available at: <https://policies.google.com/terms> ("California law will govern all disputes arising out of or relating to these terms, service-specific additional terms, or any related services, regardless of conflict of laws rules. These disputes will be resolved exclusively in the federal or state courts of Santa Clara County, California, USA, and you and Google consent to personal jurisdiction in those courts.").

1 California. For these reasons, too, Plaintiffs allege that they and the proposed nationwide class are
2 entitled to monetary and injunctive relief pursuant to California law.

3 **FIRST CAUSE OF ACTION:**
4 **VIOLATION OF THE SHERMAN ACT – MONOPOLIZATION**
5 **OF U.S. ANDROID APP DISTRIBUTION MARKET**
6 **(15 U.S.C. § 2)**

7 245. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

8 246. Plaintiffs bring this federal law claim on their own behalf and on behalf of each member
9 of the proposed nationwide class described above.

10 247. Google possesses monopoly power in the U.S. market for distribution of Android OS
11 apps, i.e., for distribution services provided to U.S. Android app developers. Alternatively, Google
12 possesses monopoly power in the U.S. market for Android app distribution.

13 248. For the reasons stated herein, substantial barriers to entry and expansion exist in the
14 relevant market.

15 249. Google has the power to exclude competition in the relevant market, and it has willfully
16 used that power, including by way of its unlawful practices in restraint of trade as described herein, in
17 order to achieve, maintain, and expand its monopoly power in that market.

18 250. Furthermore, in an exercise of its monopoly market power, and in order to willfully
19 obtain, maintain, and enhance that power in the Android app distribution market, Google has tied in-
20 app payment processing via its Google Pay Billing product to Android OS app distribution via Google
21 Play. Google has done so via policy, practice, and contract as alleged herein. In-app payments to U.S.
22 developers run to millions of dollars each year, on millions of transactions. Therefore, the effect on the
23 tied market for in-app payment processing, as well as on the tying market for distribution services, is
24 substantial. Accordingly, Google's tying conduct is *per se* unlawful. And alternatively, it is unlawful
25 under a rule of reason analysis given the facts and circumstances described herein.

26 251. Given this tie, Google's immense market power in the tying market for distribution
27 services, and the substantial effect on commerce in the tied market for Android in-app payment
28 processing, is *per se* unlawful.

252. Google's conduct as described herein, including its unlawful practices in restraint of trade, is exclusionary vis-à-vis its rivals in the U.S. market for Android OS app distribution.

253. Google has behaved as alleged herein to achieve, maintain, and grow its monopoly in the U.S. market for Android OS app distribution, with the effect being that competition is foreclosed and that developer choice is gravely diminished. So is innovation. Additionally, Google has abused its market power by imposing supracompetitive 30% (or 15%) developer service fees¹⁴⁷ and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

254. There is no valid business necessity or pro-competitive justification for Google's conduct. Instead, Google's actions are designed to destroy competition as alleged herein.

255. Plaintiffs and the class have been injured, and will continue to be injured, in their businesses and property as a result of Google's conduct, including by way of overpaying for distribution services.

256. Finally, developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment, including the harm that its behavior is causing to their businesses.

**SECOND CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – ATTEMPTED MONOPOLIZATION
OF U.S. ANDROID APP DISTRIBUTION MARKET
(15 U.S.C. § 2)**

257. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

258. Plaintiffs bring this claim on their own behalf and on behalf of each member of the proposed nationwide class described above.

¹⁴⁷ Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what amounts to payment processing services that could be purchased much cheaper from other providers if Google permitted developers to use them.

259. Google has attempted to monopolize the U.S. market for distribution of Android OS apps, i.e., for distribution services provided to U.S. Android app developers. Alternatively, Google has attempted to monopolize the U.S. market for Android OS app distribution.

260. Google's anticompetitive conduct has created a dangerous probability that it will achieve monopoly power in the U.S. market for Android OS app distribution.

261. Google has a specific intent to achieve monopoly power in the U.S. market for Android OS app distribution.

262. Google has the power to exclude competition in the U.S. market for Android OS app distribution, and it has used that power, including by way of its unlawful practices in restraint of trade as described herein, in an attempt to monopolize that relevant market.

263. Google's conduct as described herein, including its unlawful practices in restraint of trade, is exclusionary vis-à-vis its rivals in the U.S. market for Android OS app distribution.

264. Google has behaved as alleged herein in a willful attempt to obtain a monopoly in the U.S. market for Android OS app distribution, with the effect being that competition is foreclosed and that consumer choice is gravely diminished. So is innovation. Additionally, Google has abused its market power by insisting on up to 30% service fees¹⁴⁸ and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

265. There is no valid business necessity or pro-competitive justification for Google's conduct.

266. Plaintiffs and the class have been injured, and will continue to be injured, in their businesses and property as a result of Google's conduct, including by way of overpaying for distribution services.

267. Finally, developers, including Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible

¹⁴⁸ Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what amounts to payment processing services that could be purchased much cheaper from other providers if Google permitted developers to use them.

1 with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google
2 from persisting in its unlawful behavior to their detriment, including the harm that its behavior is
3 causing to their businesses.

4 **THIRD CAUSE OF ACTION:**
5 **VIOLATION OF THE SHERMAN ACT - MONOPOLIZATION OF U.S. MARKET**
6 **FOR ANDROID IN-APP PAYMENT PROCESSING**
7 **(15 U.S.C. § 2)**

8 268. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

9 269. Plaintiffs bring this federal law claim on their own behalf and on behalf of each member
10 of the proposed nationwide class described above.

11 270. For this count, the relevant market is the U.S. market for Android in-app payment
12 processing, i.e., for payment processing provided to U.S. Android app developers.

13 271. Google possesses monopoly power in the relevant market.

14 272. For the reasons stated herein, substantial barriers to entry and expansion exist in the
15 relevant markets.

16 273. Google has the power to exclude competition in the relevant market, and it has willfully
17 used that power, including by way of its unlawful practices in restraint of trade as described herein, in
18 order to achieve, maintain, and expand its monopoly power in that market.

19 274. Google's conduct as described herein, including its unlawful practices in restraint of
20 trade, is exclusionary vis-à-vis its rivals in the relevant market is the U.S. market for Android in-app
21 payment processing, i.e., for payment processing provided to U.S. Android app developers.

22 275. Google has behaved as alleged herein to achieve, maintain, and grow its monopoly in
23 the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S.
24 Android app developers, with the effect being that competition is foreclosed and that developer choice
25 is gravely diminished. So is innovation. Additionally, Google has abused its market power by imposing
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1 supracompetitive 30% (or 15%) developer service fees¹⁴⁹ and minimum price fixing. Further, Google's
2 actions have depressed output as alleged herein.

3 276. There is no valid business necessity or pro-competitive justification for Google's
4 conduct. Instead, Google's actions are designed to destroy competition as alleged herein.

5 277. Plaintiffs and the class have been injured, and will continue to be injured, in their
6 businesses and property as a result of Google's conduct, including by way of overpaying for payment
7 processing.

8 278. Finally, developers, including Plaintiffs, are inclined to sell Android OS applications,
9 in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part
10 because of their investment in their development for the Android OS ecosystem, which is incompatible
11 with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google
12 from persisting in its unlawful behavior to their detriment, including the harm that its behavior is
13 causing to their businesses.

14 **FOURTH CAUSE OF ACTION:**
15 **VIOLATION OF THE SHERMAN ACT – ATTEMPTED MONOPOLIZATION OF U.S.**
16 **MARKET FOR ANDROID IN-APP PAYMENT PROCESSING**
(15 U.S.C. § 2)

17 279. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

18 280. Plaintiffs bring this claim on their own behalf and on behalf of each member of the
19 proposed nationwide class described above.

20 281. Google has attempted to monopolize the U.S. market for Android in-app payment
21 processing, i.e., for payment processing provided to U.S. Android app developers.

22 282. Google's anticompetitive conduct has created a dangerous probability that it will
23 achieve monopoly power in the U.S. market for Android in-app payment processing, i.e., for payment
24 processing provided to U.S. Android app developers.

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27 ¹⁴⁹ Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what
28 amounts to payment processing services that could be purchased much cheaper from other providers
if Google permitted developers to use them.

283. Google has a specific intent to achieve monopoly power in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

284. Google has the power to exclude competition in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers, and it has used that power, including by way of its unlawful practices in restraint of trade as described herein, in an attempt to monopolize that relevant market.

285. Google's conduct as described herein, including its unlawful practices in restraint of trade, is exclusionary vis-à-vis its rivals in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

286. Google has behaved as alleged herein in a willful attempt to obtain a monopoly in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers, with the effect being that competition is foreclosed and that consumer choice is gravely diminished. So is innovation. Additionally, Google has abused its market power by insisting on up to 30% service fees¹⁵⁰ and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

287. There is no valid business necessity or pro-competitive justification for Google's conduct.

288. Plaintiffs and the class have been injured, and will continue to be injured, in their businesses and property as a result of Google's conduct, including by way of overpaying for payment processing.

289. Finally, developers, including Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google

¹⁵⁰ Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what amounts to payment processing that could be purchased much cheaper from other providers if Google permitted developers to use them.

1 from persisting in its unlawful behavior to their detriment, including the harm that its behavior is
2 causing to their businesses.

3 **FIFTH CAUSE OF ACTION:**
4 **VIOLATION OF THE SHERMAN ACT – RESTRAINT OF TRADE RE:**
5 **IN-APP PAYMENT PROCESSING**
6 **(15 U.S.C. §§ 1, 3)**

7 290. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

8 291. Google’s conduct violates Sections 1 and 3 of the Sherman Act, which prohibit “[e]very
9 contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce.
10 . . .” 15 U.S.C. §§ 1, 3.

11 292. Google requires app developers to enter its standardized DDA, including Developer
12 Program Policies integrated into that Agreement, as a condition of having their apps distributed
13 through Google’s monopolized app store, Google Play. The relevant provisions of these agreements
14 unreasonably restrain competition in the U.S. market for Android in-app payment processing, i.e., for
15 payment processing provided to U.S. Android app developers.

16 293. Section 3.2 of the DDA requires that Android app developers enter into a separate
17 agreement with Google’s payment processor, Defendant Google Payment, in order to receive payment
18 for apps and content distributed through Google Play. This includes payments related to in-app
19 purchases of digital content. Further, Google’s Developer Program Policies, compliance with which
20 Section 4.1 of the DDA makes obligatory, require that apps distributed through Google Play “must use
21 Google Play In-app Billing [offered by Google Payment] as the method of payment” for such in-app
22 purchases. While Google’s Policies exclude certain types of transactions from this requirement, such
23 as the purchase of “solely physical products” or of “digital content that may be consumed outside of
24 the app itself,” Google expressly applies its anticompetitive mandate to every “game downloaded on
25 Google Play” and to all purchased “game content.”

26 294. The challenged provisions serve no sufficient legitimate or pro-competitive purpose
27 and unreasonably restrain competition in the U.S. market for Android app distribution and Android in-
28 app payment processing, i.e., for payment processing provided to U.S. Android app developers.

29 295. Google’s conduct affects a substantial volume of interstate commerce.

296. Google’s conduct has substantial anticompetitive effects, including increased prices and costs, reduced innovation and quality of service, and lowered output

297. Plaintiffs and putative class members have been harmed by Google’s anticompetitive conduct in a manner that the antitrust laws were intended to prevent. They have suffered and continue to suffer damages and irreparable injury, including harm to their businesses, and such damages and injury will not abate unless an injunction issues that will stop Google’s anticompetitive conduct.

298. Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple’s iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

**SIXTH CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – TYING AS ALTERNATIVE BASIS FOR
RESTRAINT OF TRADE RE: IN-APP PAYMENT-PROCESSING
(15 U.S.C. §§ 1, 3)**

299. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

300. Google’s conduct violates Sections 1 and 3 of the Sherman Act, which prohibit “[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce. . . .” 15 U.S.C. §§ 1, 3.

301. Google has unlawfully tied distribution services for Google Play to its in-app payment processor, Google Play Billing, through its DDAs with app developers and its Developer Program Policies.

302. As demonstrated herein, Google has immense, monopoly power in the tying market—the U.S. market for Android OS app distribution. Put another way, with Google Play installed on nearly all Android OS devices and over 90% of downloads on Android OS devices being performed via Google Play, Google has overwhelming market power. Google’s market power is further evidenced by its ability to extract supracompetitive taxes on the sale of apps via Google Play.

303. The availability of Google Play for app distribution is conditioned on the app developer accepting a second product, Google’s in-app payment processing. Google’s substantial foreclosure of

1 alternative app distribution channels thus forces developers, including the Plaintiffs and putative class
2 members, to use Google's in-app payment processing.

3 304. The tying product, Android app distribution, is distinct from the tied product, Android
4 in-app payment processing, because app developers have alternative in-app payment processing
5 options and would prefer to choose among them independently of how an Android app is distributed.
6 Google's unlawful tying arrangement thus ties two separate products that are in separate markets.
7 Google's contract and written policies underscore their separate nature.¹⁵¹

8 305. Google's conduct forecloses competition in the U.S. market for Android in-app
9 payment processing, i.e., for payment processing provided to U.S. Android app developers. Given the
10 volume of transactions and the money at issue, Google's conduct thus affects a substantial volume of
11 commerce in that market.

12 306. Google has thus engaged in a *per se* illegal tying arrangement. *See* ¶¶ 190-195, *supra*.

13 307. In the alternative only, even if Google's tying conduct does not constitute a *per se*
14 violation of the law, a rule-of-reason analysis of Google's tying arrangement also would demonstrate
15 that it violates the law.

16 308. As app developers that consume in-app payment processing for in-app subscription
17 products, Plaintiffs have been harmed by Google's anticompetitive conduct. Plaintiffs and members
18 of the putative class have suffered and continue to suffer damages and irreparable injury, including
19 ongoing harm to their businesses, and such damages and injury will not abate until the Court issues an
20 injunction ending Google's anticompetitive conduct issues.

21 309. Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-
22 app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part
23 because of their investment in their development for the Android OS ecosystem, which is incompatible
24 with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google
25 from persisting in its unlawful behavior to their detriment.

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¹⁵¹ *See supra* ¶¶ 190-195.

**SEVENTH CAUSE OF ACTION:
VIOLATION OF THE UNFAIR COMPETITION ACT
(CAL. BUS. & PROF. CODE §§ 17200 *ET SEQ.*)**

310. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

311. Plaintiffs bring this claim on their own behalf and on behalf of each member of the proposed nationwide class described above.

312. California’s Unfair Competition Law (UCL) defines “unfair competition” to include any “unlawful, unfair, or fraudulent” business act or practice. CAL. BUS. & PROF. CODE §§ 17200 *et seq.* As these are stated in the disjunctive, the UCL sets up three prongs—the unlawful, unfair, and fraudulent prongs—the violation of any of which constitutes a violation of the UCL.

313. Google has engaged in, and continues to engage in, acts of unfair competition as defined in California’s UCL. More specifically, Google, based upon the conduct alleged herein, has violated the unlawful, unfair, and fraudulent prongs of the UCL.

A. Google’s Conduct is Unlawful

314. Google’s acts of unfair competition include its violations of the Sherman and Cartwright Acts as alleged herein. Therefore, Google has violated the unlawful prong of the UCL.

315. Google’s unlawful conduct has caused Plaintiffs and Class members to suffer injury in fact. Because developers have overpaid for distribution and in-app payment processing fees, they have lost money or property as a result of Google’s unlawful behavior.

316. Finally, developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple’s iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

B. Google Has Behaved Unfairly

317. Google’s acts of unfair competition include its violations of the Sherman Act and Cartwright Acts and the policies underlying those statutes, as alleged herein. Additionally, Google has behaved unfairly and in violation of public policy as alleged herein. Therefore, Google has violated the unfair prong of the UCL.

1 318. Google's unfair conduct has caused Plaintiffs and class members to suffer injury in fact.
2 Because developers have overpaid for distribution and in-app payment processing fees, they have lost
3 money or property as a result of Google's unfair behavior.

4 319. Finally, developers, including the Plaintiffs, are inclined to sell Android OS
5 applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the
6 future, in part because of their investment in their development for the Android OS ecosystem, which
7 is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to
8 prevent Google from persisting in its unlawful behavior to their detriment.

9 **C. Google Has Behaved Fraudulently**

10 320. Google's acts of unfair competition include its fraudulent business acts and practices.
11 Therefore, Google has violated the fraudulent prong of the UCL.

12 321. Google's fraudulent conduct has caused Plaintiffs and class members to suffer injury
13 in fact. Because developers have overpaid for distribution and in-app payment processing fees, they
14 have lost money or property as a result of Google's fraudulent business acts and practices.

15 322. Finally, developers, including the Plaintiffs, are inclined to sell Android OS
16 applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the
17 future, in part because of their investment in their development for the Android OS ecosystem, which
18 is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to
19 prevent Google from persisting in its fraudulent behavior to their detriment.

20 **EIGHTH CAUSE OF ACTION:**
21 **VIOLATION OF THE CARTWRIGHT ACT**
(CA. BUS & PROF. CODE §§ 16700 ET SEQ.)

22 323. Plaintiffs repeat and re-allege every allegation above as set forth herein in full.

23 324. Google's acts and practices detailed above violate the Cartwright Act, Cal. Bus. & Prof.
24 Code § 16700 *et seq.*, which prohibits, *inter alia*, the combination of resources by two or more persons
25 to restrain trade or commerce or to prevent market competition. *See* §§ 16720, 16726.

26 325. Under the Cartwright Act, a "combination" is formed when the anti-competitive
27 conduct of a single firm coerces other market participants to involuntarily adhere to the anti-
28 competitive scheme.

1 326. The U.S. market for distribution of Android OS apps, i.e., for distribution services
2 provided to U.S. Android app developers, is a valid antitrust market. Alternatively, the Android app
3 distribution market is a valid antitrust market.

4 327. Google has executed agreements with OEMs that unreasonably restrict competition in
5 the U.S. market for distribution of Android OS apps. Namely, Google has entered into MADAs with
6 OEMs that require OEMs to offer the Google Play Store as the primary—and practically the only—
7 app store on Android mobile devices. These agreements further prevent OEMs from offering
8 alternative app stores on Android mobile devices in any prominent visual positioning.

9 328. Google requires app developers to enter its standardized DDA, including Developer
10 Program Policies integrated into that Agreement, as a condition of having their apps distributed
11 through Google’s monopolized app store, Google Play. The relevant provisions of these agreements
12 unreasonably restrain competition in the U.S. market for Android in-app payment processing, i.e., for
13 payment processing provided to U.S. Android app developers.

14 329. Section 3.2 of the DDA requires that Android app developers enter into a separate
15 agreement with Google’s payment processor, Defendant Google Payment, in order to receive payment
16 for apps and content distributed through Google Play. This includes payments related to in-app
17 purchases of digital content. Further, Google’s Developer Program Policies, compliance with which
18 Section 4.1 of the DDA makes obligatory, require that apps distributed through Google Play “must use
19 Google Play In-app Billing [offered by Google Payment] as the method of payment” for such in-app
20 purchases. While Google’s Policies exclude certain types of transactions from this requirement, such
21 as the purchase of “primarily physical” goods and services or of “digital content that may be consumed
22 outside of the app itself,” Google expressly applies its anticompetitive mandate to all “Play-distributed
23 apps . . . if they require or accept payment for access to features or services, including any app
24 functionality, digital content or goods”.

25 330. The challenged provisions serve no sufficient legitimate or pro-competitive purpose
26 and unreasonably restrain competition in the U.S. market for Android app distribution and Android in-
27 app payment processing, i.e., for payment processing provided to U.S. Android app developers.

331. Google’s conduct has substantial anticompetitive effects, including increased prices and costs, reduced innovation and quality of service, and lowered output.

332. Plaintiffs and putative class members have been harmed by Google’s anticompetitive conduct in a manner that the Cartwright Act was intended to prevent. They have suffered and continue to suffer damages and irreparable injury, including harm to their businesses, and such damages and injury will not abate unless an injunction issues that will stop Google’s anticompetitive conduct.

333. Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple’s iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

**NINTH CAUSE OF ACTION:
VIOLATION OF THE CARTWRIGHT ACT;
TYING AS ALTERNATIVE BASIS FOR RESTRAINT OF TRADE REGARDING IN-APP
PAYMENT PROCESSING
(CA. BUS & PROF. CODE §§ 16700 ET SEQ.)**

334. Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

335. Google’s acts and practices detailed above violate the Cartwright Act, Cal. Bus. & Prof. Code § 16700 *et seq.*, which prohibits, *inter alia*, the combination of resources by two or more persons to restrain trade or commerce or to prevent market competition. *See* §§ 16720, 16726.

336. Under the Cartwright Act, a “combination” is formed when the anti-competitive conduct of a single firm coerces other market participants to involuntarily adhere to the anti-competitive scheme.

337. Google has unlawfully tied distribution services for Google Play to its in-app payment processor, Google Play Billing, through its DDAs with app developers and its Developer Program Policies.

338. As demonstrated herein, Google has immense, monopoly power in the tying market—the U.S. market for Android OS app distribution. Put another way, with Google Play installed on nearly all Android OS devices and over 90% of downloads on Android OS devices being performed

1 via Google Play, Google has overwhelming market power. Google's market power is further
2 evidenced by its ability to extract supracompetitive taxes on the sale of apps via Google Play.

3 339. The availability of Google Play for app distribution is conditioned on the app
4 developer accepting a second product, Google's in-app payment processing. Google's substantial
5 foreclosure of alternative app distribution channels thus forces developers, including the Plaintiffs
6 and putative class members, to use Google's in-app payment processing.

7 340. The tying product, Android app distribution, is distinct from the tied product, Android
8 in-app payment processing, because app developers have alternative in-app payment processing
9 options and would prefer to choose among them independently of how an Android app is distributed.
10 Google's unlawful tying arrangement thus ties two separate products that are in separate markets.
11 Google's contract and written policies underscore their separate nature.¹⁵²

12 341. Google's conduct forecloses competition in the U.S. market for Android in-app
13 payment processing, i.e., for payment processing provided to U.S. Android app developers. Given
14 the volume of transactions and the money at issue, Google's conduct thus affects a substantial
15 volume of commerce in that market.

16 342. Google has thus engaged in a *per se* illegal tying arrangement. *See* ¶¶ 190-195, *supra*.

17 343. In the alternative only, even if Google's tying conduct does not constitute a *per se*
18 violation of the law, a rule-of-reason analysis of Google's tying arrangement also would demonstrate
19 that it violates the law.

20 344. As app developers that consume in-app payment processing for in-app subscription
21 products, Plaintiffs have been harmed by Google's anticompetitive conduct. Plaintiffs and members
22 of the putative class have suffered and continue to suffer damages and irreparable injury, including
23 ongoing harm to their businesses, and such damages and injury will not abate until the Court issues
24 an injunction ending Google's anticompetitive conduct issues.

25 345. Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-
26 app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part

27 ¹⁵² *See supra* ¶¶ 155-57.

1 because of their investment in their development for the Android OS ecosystem, which is
2 incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to
3 prevent Google from persisting in its unlawful behavior to their detriment.

4 **PRAYER FOR RELIEF**

5 WHEREFORE, Plaintiffs respectfully request the following relief:

6 A. That the Court certify this case as a class action and that it appoint Plaintiffs as class
7 representatives and their counsel as class counsel;

8 B. That the Court award them and the proposed class all appropriate relief, to include, but
9 not be limited to, injunctive relief requiring that Google cease the abusive, unlawful, and
10 anticompetitive practices described herein (including pursuant to federal antitrust law, *see, e.g.*, 15
11 U.S.C. § 26, and state law, *see, e.g.*, Cal. Bus. & Prof. Code §§ 16750 and 17203, as requested herein);
12 declaratory relief, adjudging such practices unlawful; as well as monetary relief, whether by way of
13 restitution (*see, e.g.*, Cal. Bus. & Prof. Code § 17203) or damages, including treble damages (*see, e.g.*,
14 15 U.S.C. § 15(a), and Cal. Bus. & Prof. Code § 16750), or other multiple or punitive damages, or
15 restitution, where mandated by law (including federal antitrust law, *see, e.g.*, 15 U.S.C. § 15(a)) or
16 equity or as otherwise available; together with recovery of their costs of suit, to include their reasonable
17 attorneys' fees, costs, and expenses (including pursuant to federal and state antitrust law, *see, e.g.*, 15
18 U.S.C. § 15(a) and/or 15 U.S.C. § 26 and Cal. Bus. & Prof. Code § 16750; *see also* Cal. Code Civ.
19 Pro. § 1021.5)), together with pre- and post-judgment interest to the maximum levels permitted by law
20 or equity.

21 C. That the Court grant such additional orders or judgments as may be necessary to prevent
22 the unlawful practices complained of herein; and

23 D. That the Court award Plaintiffs and the proposed class such other, favorable relief as
24 may be available and appropriate under federal or state law, or at equity.

25 **JURY TRIAL DEMANDED**

26 Plaintiffs demand a trial by jury on all issues so triable.
27
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1 DATED: July 21, 2021

Respectfully submitted,

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